

RUPP002070

#	QTY	PART #	DESCRIPTION
1	6	03-1076-50	NYLON WASHER
2	6	13-1341-40	HAYLYARD LOCK SCREW NUT (10-32)
3	1	13-1352-50	TIP POINT BLACK
4	1	13-1353-23	TUBE BUSHING #1
5	1	13-1354-23	TUBE BUSHING #2
6	1	13-1355-23	TUBE BUSHING #3
7	1	13-1356-23	TUBE BUSHING #4
8	1	13-1357-23	TUBE BUSHING #5
9	1	13-1358-42	10-32 X .700 EYE BOLT
10	1	13-1359-42	10-32 X 1.050 EYE BOLT
11	1	13-1360-42	10-32 X 1.350 EYE BOLT
12	1	13-1363-42	.760 X .626 X 42"
13	1	13-1364-42	.924 X .768 X 42"
15	1	13-1365-42	1.080 X .932 X 42"
17	1	13-1366-42	1.220 X 1.088 X 42"
18	1	13-1367-36	1.360 X 1.228 X 36"
19	1	13-1713-5PC	5 PC. OUTRIGGER SLEEVE
20	6	13-1843-50	.375 OD X .255 X .032 NYLON WASHER
21	1	132-1000-221	SCREW
22	1	132-1250-221	SCREW
23	1	132-1500-221	SCREW
24	3	375-0185-S1	WASHER

#### INSTRUCTIONS FOR ASSEMBLY OF TOP GUN POLES

##### A- Study parts of TOP GUN poles

B- Starting with largest pre-assembled diameter pole section, slip largest collar on pole and line up holes. Take the next smallest diameter pole section and insert approximately 6 inches into first section and line up holes. Insert longest screw with a nylon washer thru holes and tighten with screw nut. We recommended, that Loc-Tite® be used on threads of Eye Bolts and Screws

C- Repeat previous procedure. Use next smallest collar, insert next smallest pole section. Line up holes and insert longest eye bolt with a stainless steel washer and a nylon washer and tighten with screw nut.

NOTE: Nylon washers go between collar and Stainless Steel washer. See collar assembly details. DO NOT OVERTIGHTEN.

D- Continue in the same fashion. Alternate every other collar with an eye bolt.

E- Insert Tip Point on end of the last pole section. Using smallest eye bolt with washers, fasten tip in place.

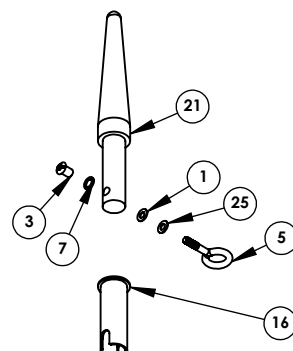
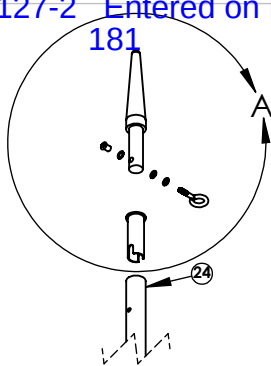
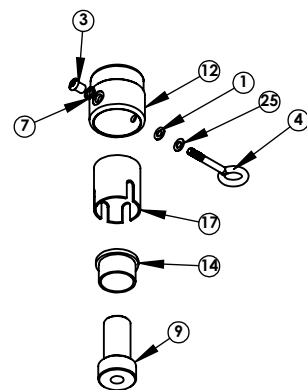
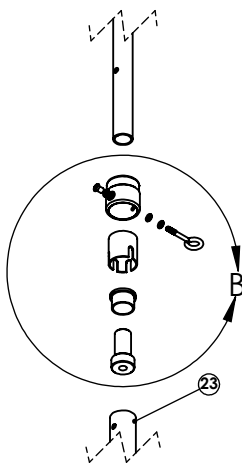
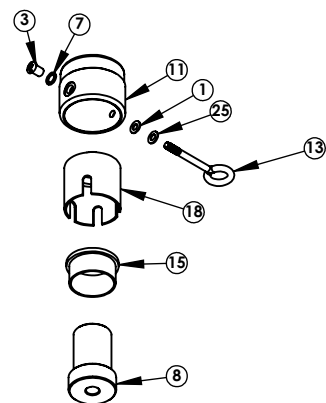
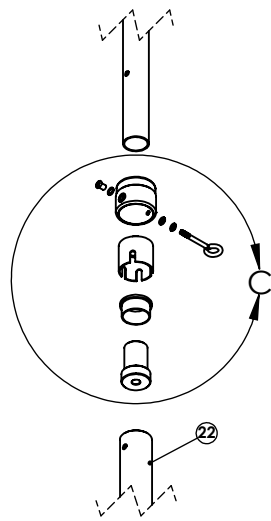
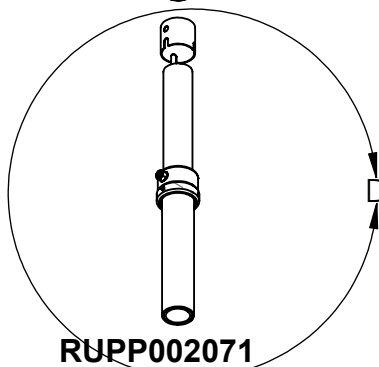
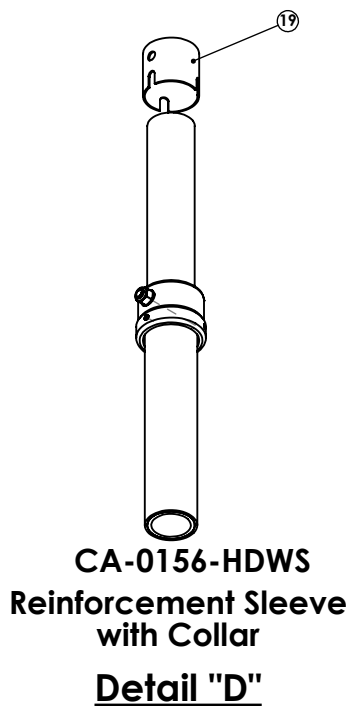


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Serious Sportfishing Hardware  
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**A0-1500-5PC**  
**Parts Breakdown**

Last Updated 5/17/2019 Sheet 1 of 1

#	QTY	Part No	Description
1	3	03-1076-50	Nylon Washer
3	3	13-1341-40	Haylyard Lock Screw Nut (10-32)
4	1	13-1360-42	10-32 x 1.350 Eye Bolt
5	1	13-1706-42	EYE BOLT 10-32 Thread
7	3	13-1843-50	.375 OD x .255 x .032 Nylon Washer
8	1	21-1651-50	Plunger Base-Lg-15
9	1	21-1652-50	Plunger Base Small -15
11	1	21-1755-23	Collar Lg CF
12	1	21-1756-23	Medium Collar CF
13	1	21-1757-42	10-32 x 1.685 Eye Bolt
14	1	21-1760-MP	Tube Bushing SM
15	1	21-1761-MP	Tube Bushing Lg
16	1	21-1793-50	Tip Point Isolation Sleeve
17	1	21-1794-50	Isolation Spacer Medium
18	1	21-1795-50	Isolation Spacer LG
19	1	21-1798-50	Isolation Spacer Base Anchor
21	1	21-1800-23	Tip Point For CF
22	1	21-BAS-15CF	Base Section
23	1	21-MID-15CF	Mid Section
24	1	21-TIP-15CF	Tip Section
25	3	375-0185-S1	Washer

**Detail "A"****Detail "B"****Detail "C"**

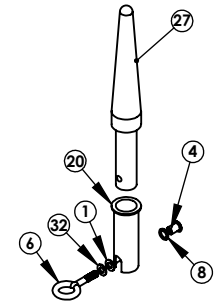
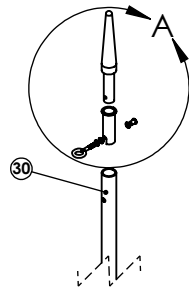
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## A0-1500-CF

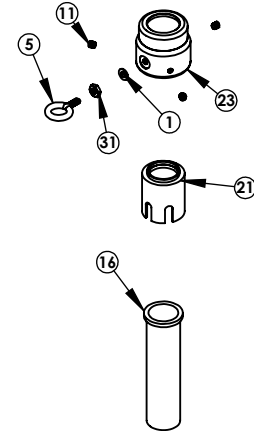
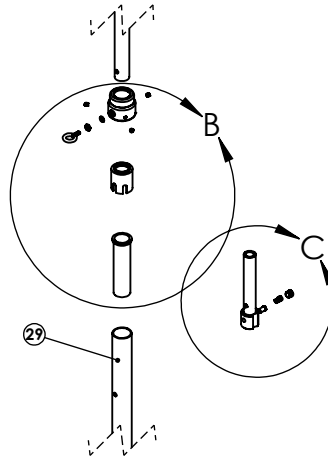
### Parts Breakdown

Last Updated 1/14/2020 Sheet 1 of 1

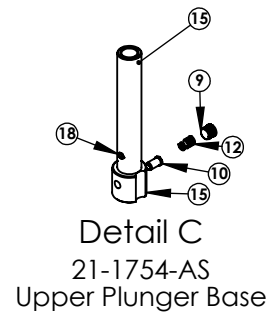
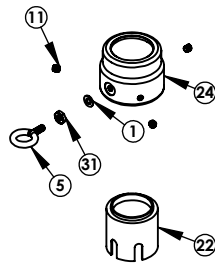
#	QTY	Part No	Description
1	3	03-1076-50	Nylon Washer
4	1	13-1341-40	Haylyard Lock Screw Nut (10-32)
5	2	13-1666-42	Eye Bolt, 10-32 Thread
6	1	13-1706-42	EYE BOLT 10-32 Thread
8	1	13-1843-50	.375 OD x .255 x .032 Nylon Washer
9	2	21-1653-40	Shoulder Bolt
10	2	21-1657-AS	Plunger
11	9	19-1842-40	Set screw 10-32 Thread
12	1	21-1676-40	.300OD x .31W x .450
13	1	21-1677-40	.300OD x .35W x .660
14	1	21-1753-50	Plunger Cartridge LG
15	1	21-1754-50	Plunger Cartridge MD
16	1	21-1760-50	Tube Bushing SM
17	1	21-1761-50	Tube Bushing LG
18	1	21-1768-40	1/4-20 x .75 Socket Set Screw Cup Point
19	1	21-1769-40	1/4-20 x 1 Socket Set Screw Cup Point
20	1	21-1793-50	Tip Point Isolation Sleeve
21	1	21-1794-50	Isolation Spacer Medium
22	1	21-1795-50	Isolation Spacer LG
23	1	21-1796-23	Tele Collar MED CF
24	1	21-1797-23	Tele Collar LG CF
25	1	21-1798-50	Isolation Spacer Base Anchor
27	1	21-1800-23	Tip Point For CF
28	1	21-BAS-15CT	Base Section
29	1	21-MID-15CT	Mid Section (Includes Detail D)
30	1	21-TIP-15CT	Tip Section (Includes Detail C)
31	2	132-000-RH	10-32 Nut
32	1	375-0185-S1	Washer



DETAIL A



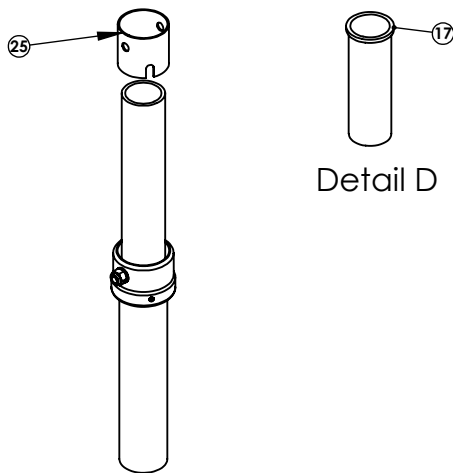
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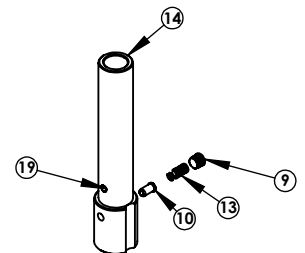
Detail C

21-1754-AS

Upper Plunger Base



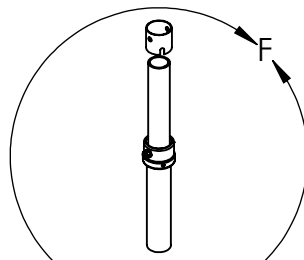
Detail D



Detail E

21-1753-AS

Lower Plunger Base



Detail F

CA-0156-AS

Reinforcement Sleeve  
with Collar

RUPP002072

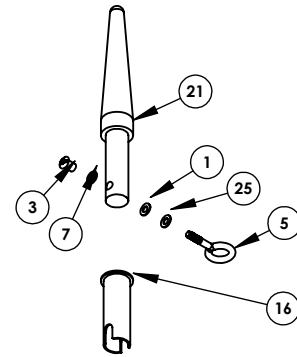
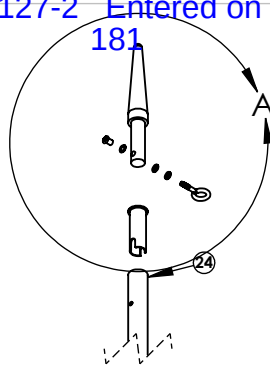
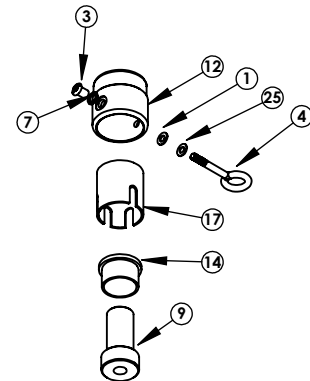
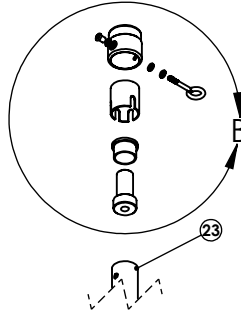
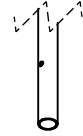
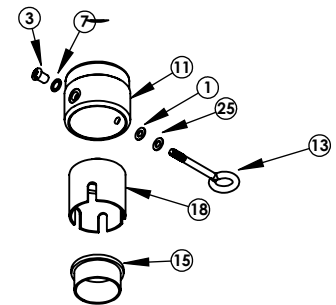
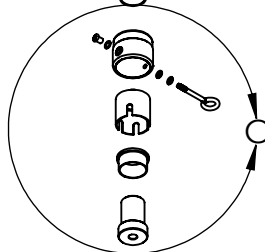
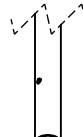
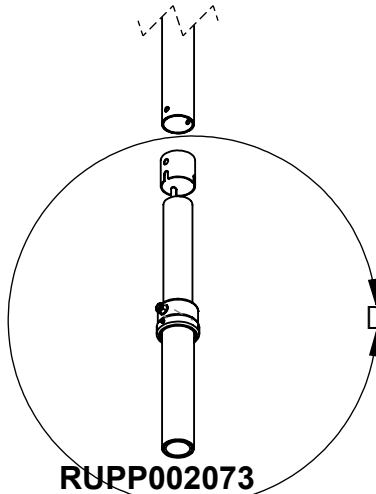
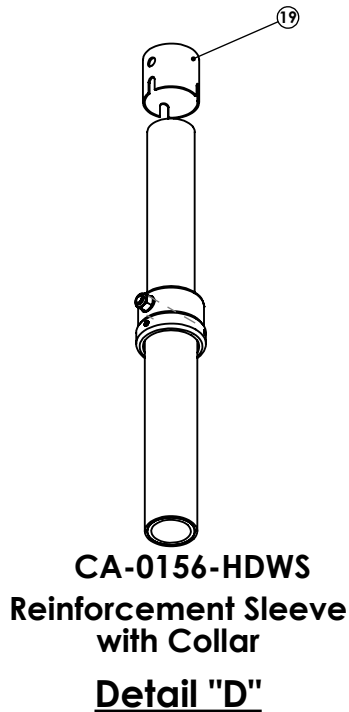


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**A0-1500-CFT**  
**Parts Breakdown**

Last Updated 6/15/2023 Sheet 1 of 1

#	QTY	Part No	Description
1	3	03-1076-50	Nylon Washer
3	3	13-1341-40	Haylyard Lock Screw Nut (10-32)
4	1	13-1360-42	10-32 x 1.350 Eye Bolt
5	1	13-1706-42	EYE BOLT 10-32 Thread
7	3	13-1843-50	.375 OD x .255 x .032 Nylon Washer
8	1	21-1651-50	Plunger Base-Lg-15
9	1	21-1652-50	Plunger Base Small -15
11	1	21-1755-23	Collar Lg CF
12	1	21-1756-23	Medium Collar CF
13	1	21-1757-42	10-32 x 1.685 Eye Bolt
14	1	21-1760-MP	Tube Bushing SM
15	1	21-1761-MP	Tube Bushing Lg
16	1	21-1793-50	Tip Point Isolation Sleeve
17	1	21-1794-50	Isolation Spacer Medium
18	1	21-1795-50	Isolation Spacer LG
19	1	21-1798-50	Isolation Spacer Base Anchor
21	1	21-1800-23	Tip Point For CF
22	1	21-BAS-15CF	Base Section
23	1	21-MID-15CF	Mid Section
24	1	21-TIP-15CF	Tip Section
25	3	375-0185-S1	Washer

**Detail "A"****Detail "B"****Detail "C"**

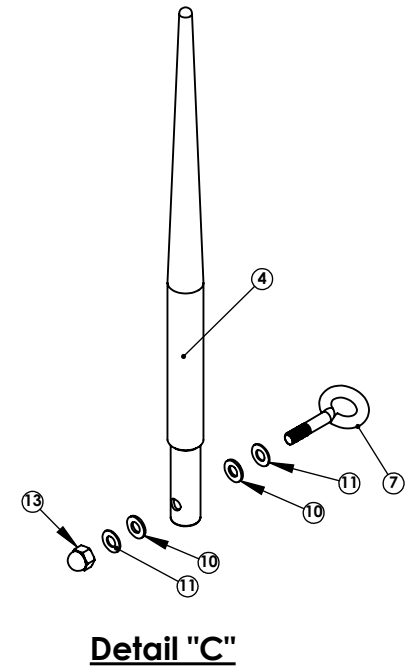
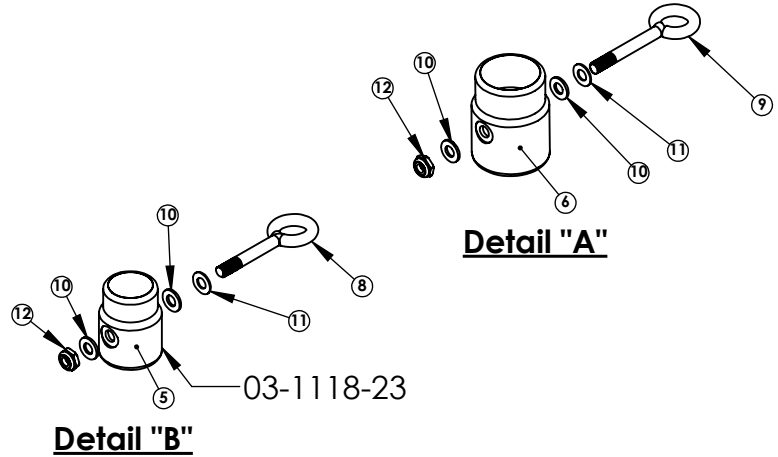
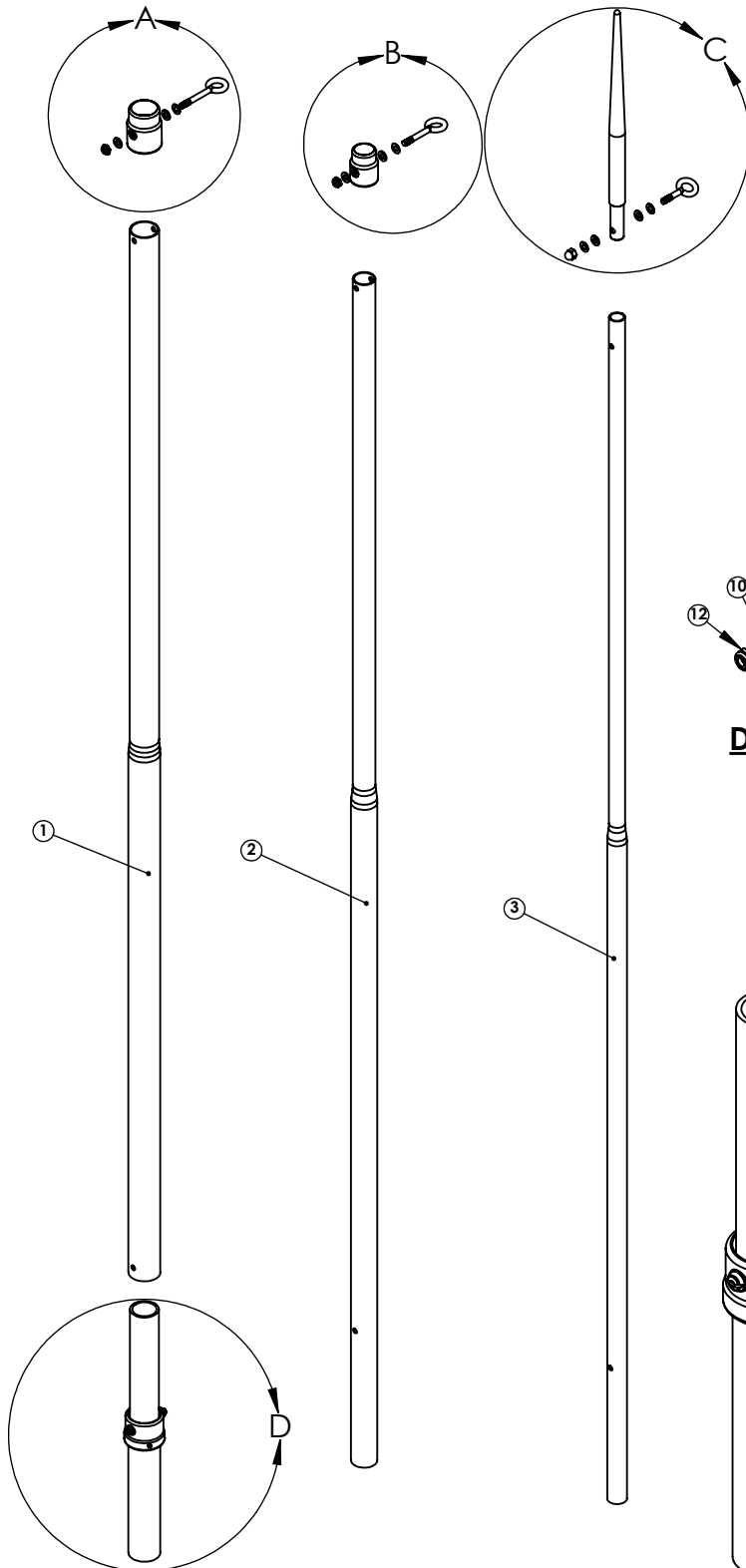
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# **A0-1500-CRC** **Parts Breakdown**

Last Updated 6/15/2023 Sheet 1 of 1



#	Qty	Part No	Description
1	1	03-1237-23	15 FT 3 PC SECTION 1-3/8" x 1-1/2"
2	1	03-1236-23	15FT 3PC SECTION 1-1/16" x 1-1/4"
3	1	03-1235-23	15 Ft 3 Pc. SECTION 3/4 x 15/16
4	1	03-1023-23	Tip Point
5	1	03-1118-23	Small Tip Collar
6	1	03-1119-23	Large Tip Collar
7	1	03-1061-42	Eye Bolt
8	1	03-1062-42	Eye Bolt
9	1	03-1063-42	Eye Bolt
10	8	03-1175-50	Washer, Nylon
11	4	500-250-S1	1/2 x 1/4 Washer
12	2	420-NTE-01	1/4-20 Nylock
13	1	420-CBO-00	Cap Nut



CA-0156-AS  
Reinforcement Sleeve  
with Collar  
Detail "D"

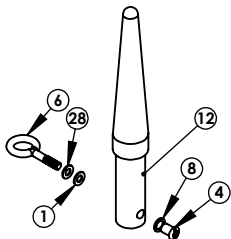
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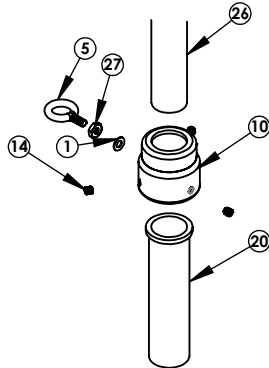
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**A0-1500-CRP**  
**Parts Breakdown**

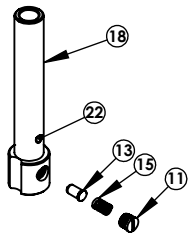
Last Updated 6/18/2019 Sheet 1 of 1



DETAIL A

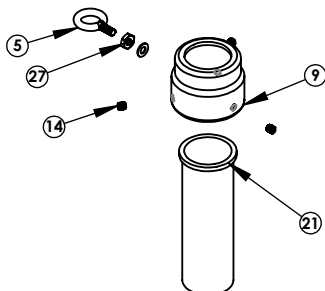


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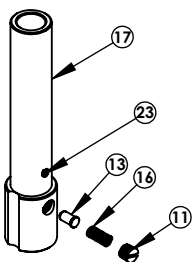


DETAIL C

21-1754-AS  
Upper Plunger ASM

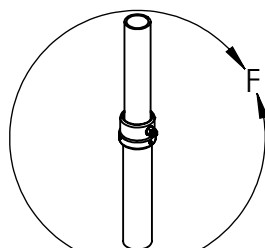
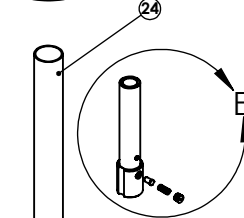
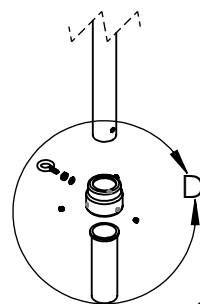
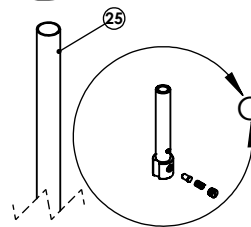
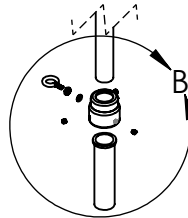
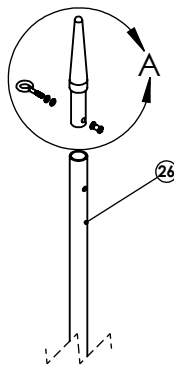


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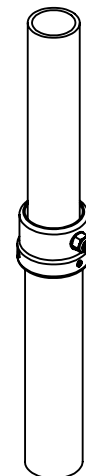
DETAIL E

21-1753-AS  
Lower Plunger ASM



RUPP002075

#	QTY	Part No	Description
1	3	03-1076-50	Nylon Washer
4	1	13-1341-40	Haylyard Lock Screw Nut (10-32)
5	2	13-1666-42	Eye Bolt, 10-32 Thread
6	1	13-1706-42	EYE BOLT 10-32 Thread
8	1	13-1843-50	.375 OD x .255 x .032 Nylon Washer
9	1	21-1645-23	Collar Large
10	1	21-1646-23	Collar Medium
11	2	21-1653-40	Shoulder Bolt
12	1	21-1655-23	Tip Point- 15/18
13	2	21-1657-AS	Plunger
14	9	19-1842-40	Set screw 10-32 Thread
15	1	21-1676-40	.300OD x .31W x .450
16	1	21-1677-40	.300OD x .35W x .660
17	1	21-1753-50	Plunger Cartridge LG
18	1	21-1754-50	Plunger Cartridge MD
20	1	21-1760-50	Tube Bushing SM
21	1	21-1761-50	Tube Bushing LG
22	1	21-1768-40	1/4-20 x .75 Socket Set Screw Cup Point
23	1	21-1769-40	1/4-20 x 1 Socket Set Screw Cup Point
24	1	21-BAS-15	Base Section
25	1	21-MID-15	Mid Section
26	1	21-TIP-15	Tip Section
27	2	132-000-RH	10-32 Nut
28	1	375-0185-S1	Washer



CA-0156-AS  
Reinforcement Sleeve with Collar

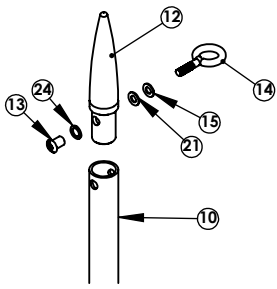
DETAIL F  
SCALE 1 : 5



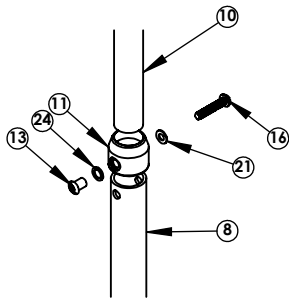
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**A0-1500-TEL**  
**Parts Breakdown**

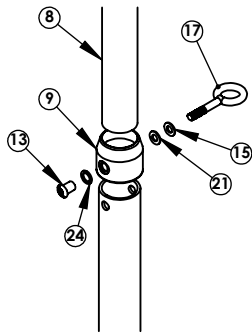
Last Updated 6/15/2023 Sheet 1 of 1



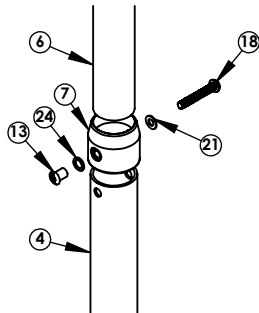
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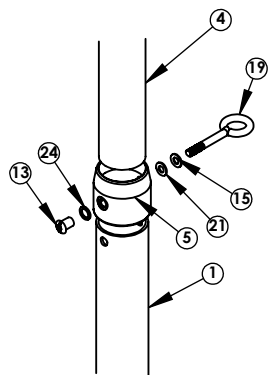
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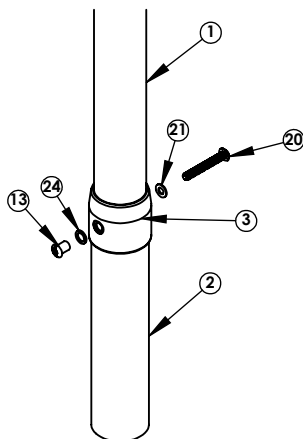
DETAIL C



DETAIL D

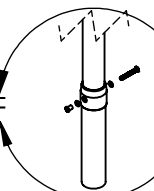
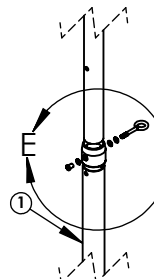
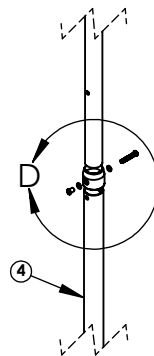
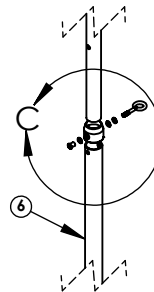
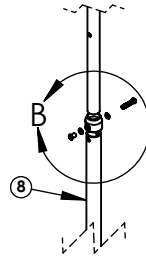
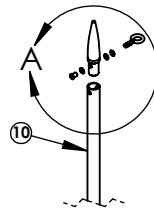


DETAIL E



DETAIL F

RUPP002076



#	QTY	Part No	Description
1	1	13-1367-42	1.360 x 1.228 x 42"
2	1	13-1713-5PC	5 Pc. Outrigger Sleeve
3	1	13-1357-23	TUBE BUSHING #5
4	1	13-1366-48	1.220 x 1.088 x 48"
5	1	13-1356-23	Tube Bushing #4
6	1	13-1365-48	1.080 x .932 x 48"
7	1	13-1355-23	TUBE BUSHING #3
8	1	13-1364-48	.924 x .768 x 48"
9	1	13-1354-23	TUBE BUSHING #2
10	1	13-1363-48	.760 x .626 x 48"
11	1	13-1353-23	TUBE BUSHING #1
12	1	13-1352-50	TIP POINT BLACK
13	6	13-1341-40	Haylyard Lock Screw Nut (10-32)
14	1	13-1358-42	10-32 x .700 Eye Bolt
15	3	375-0185-S1	Washer
16	1	132-1000-221	Screw
17	1	13-1359-42	10-32 x 1.050 Eye Bolt
18	1	132-1250-221	Screw
19	1	13-1360-42	10-32 x 1.350 Eye Bolt
20	1	132-1500-221	Screw
21	6	03-1076-50	Nylon Washer
24	6	13-1843-50	.375 OD x .255 x .032 Nylon Washer

#### INSTRUCTIONS FOR ASSEMBLY OF TOP GUN POLES

A- Study parts of TOP GUN poles

B- Starting with largest pre-assembled diameter pole section, slip largest collar on pole and line up holes. Take the next smallest diameter pole section and insert approximately 6 inches into first section and line up holes. Insert longest screw with a nylon washer thru holes and tighten with screw nut. We recommended, that Loc-Tite® be used on threads of Eye Bolts and Screws

C- Repeat previous procedure. Use next smallest collar, insert next smallest pole section. Line up holes and insert longest eye bolt with a stainless steel washer and a nylon washer and tighten with screw nut.

NOTE: Nylon washers go between collar and Stainless Steel washer. See collar assembly detail. DO NOT OVERTIGHTEN.

D- Continue in the same fashion. Alternate every other collar with an eye bolt.

E- Insert Tip Point on end of the last pole section. Using smallest eye bolt with washers, fasten tip in place.

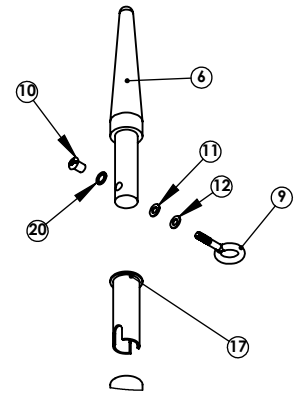
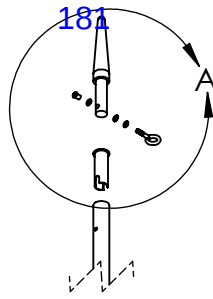
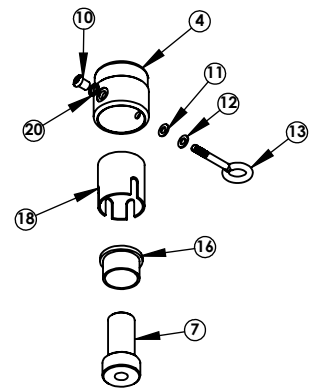
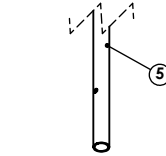
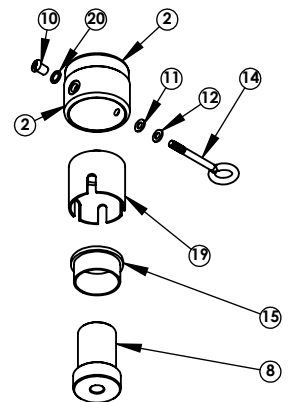
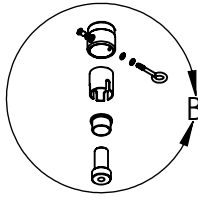
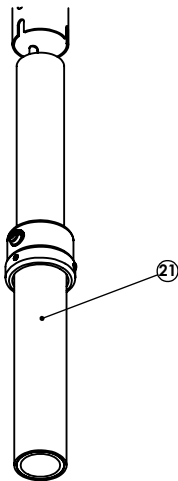


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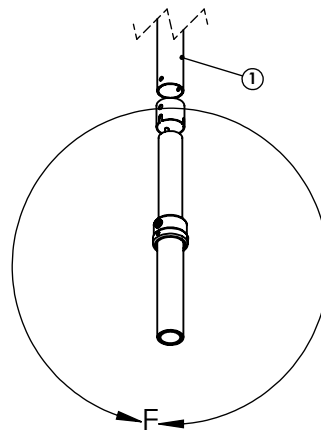
**A0-1800-5PC**  
**Parts Breakdown**

Last Updated 10/15/2019 Sheet 1 of 1

#	QTY.	PART NO	DESCRIPTION
1	1	21-BAS-18CF	BASE SECTION
2	1	21-1755-23	COLLAR LG CF
3	1	21-MID-18CF	MID SECTION
4	1	21-1756-23	MEDIUM COLLAR CF
5	1	21-TIP-18CF	TIP SECTION
6	1	21-1800-23	TIP POINT FOR CF
7	1	21-1652-50	PLUNGER BASE SMALL -15
8	1	21-1651-50	PLUNGER BASE-LG-15
9	1	13-1706-42	EYE BOLT 10-32 THREAD
10	3	13-1341-40	HAYLYARD LOCK SCREW NUT (10-32)
11	3	03-1076-50	NYLON WASHER
12	3	375-0185-S1	WASHER
13	1	13-1360-42	10-32 X 1.350 EYE BOLT
14	1	21-1757-42	10-32 X 1.685 EYE BOLT
15	1	21-1761-MP	TUBE BUSHING LG
16	1	21-1760-MP	TUBE BUSHING SM
17	1	21-1793-50	TIP POINT ISOLATION SLEEVE
18	1	21-1794-50	ISOLATION SPACER MEDIUM
19	1	21-1795-50	ISOLATION SPACER LG
20	3	13-1843-50	.375 OD X .255 X .032 NYLON WASHER
21	1	CA-0156-AS	REINFORCEMENT SLEEVE WITH COLLAR

**Detail "A"****Detail "B"****Detail "C"**

**DETAIL E**  
**CA-0156-HDWS**  
**Reinforcement Sleeve**  
**with Collar**



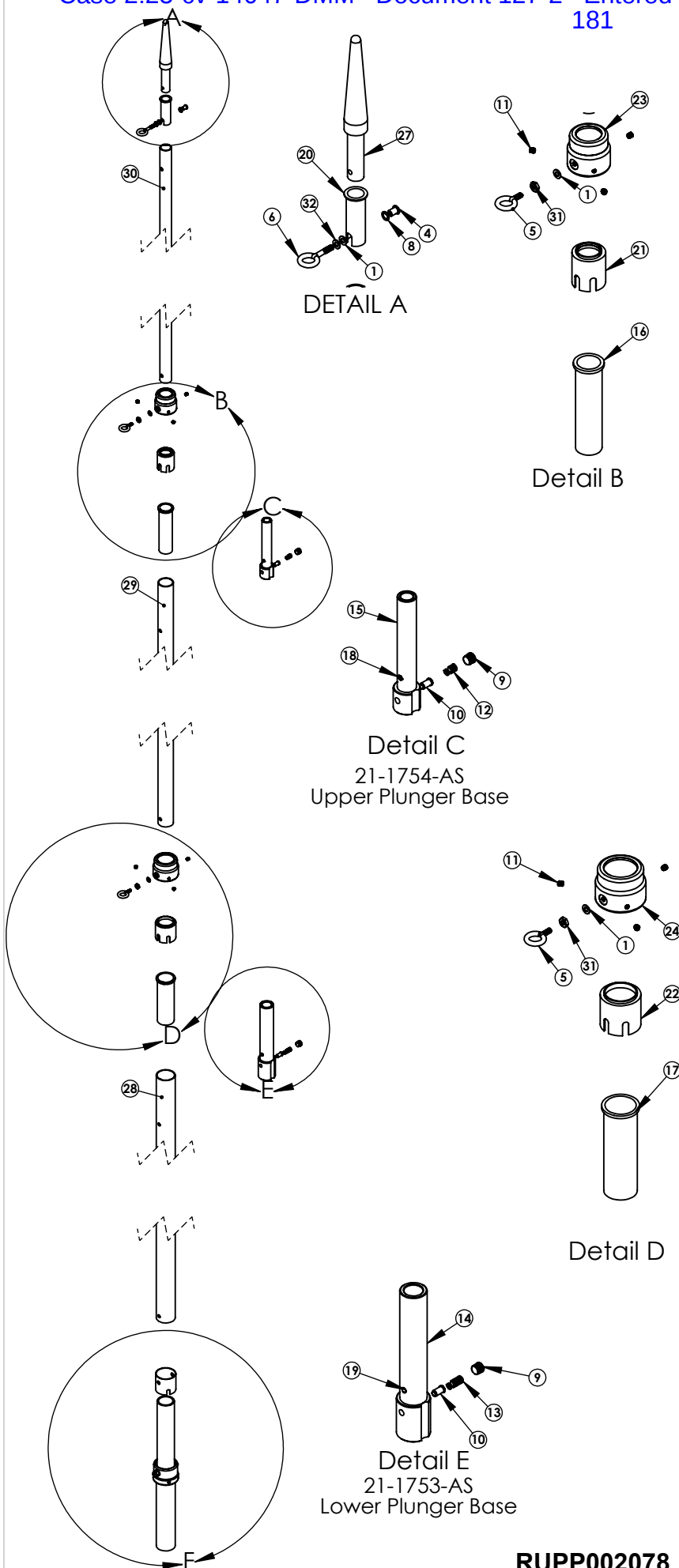
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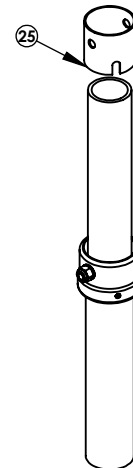
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**A0-1800-CF**  
**Parts Breakdown**

Last Updated 1/14/2020 Sheet 1 of 1



#	QTY	PART NO	DESCRIPTION
1	3	03-1076-50	NYLON WASHER
4	1	13-1341-40	HAYLYARD LOCK SCREW NUT (10-32)
5	2	13-1666-42	EYE BOLT, 10-32 THREAD
6	1	13-1706-42	EYE BOLT 10-32 THREAD
8	1	13-1843-50	.375 OD X .255 X .032 NYLON WASHER
9	2	21-1653-40	SHOULDER BOLT
10	2	21-1657-AS	PLUNGER
11	9	19-1842-40	SET SCREW 10-32 THREAD
12	1	21-1676-40	.300OD X .31W X .450
13	1	21-1677-40	.300OD X .35W X .660
14	1	21-1753-50	PLUNGER CARTRIDGE LG
15	1	21-1754-50	PLUNGER CARTRIDGE MD
16	1	21-1760-50	TUBE BUSHING SM
17	1	21-1761-50	TUBE BUSHING LG
18	1	21-1768-40	1/4-20 X .75 SOCKET SET SCREW CUP POINT
19	1	21-1769-40	1/4-20 X 1 SOCKET SET SCREW CUP POINT
20	1	21-1793-50	TIP POINT ISOLATION SLEEVE
21	1	21-1794-50	ISOLATION SPACER MEDIUM
22	1	21-1795-50	ISOLATION SPACER LG
23	1	21-1796-23	TELE COLLAR MED CF
24	1	21-1797-23	Tele Collar LG CF
25	1	21-1798-50	ISOLATION SPACER BASE ANCHOR
27	1	21-1800-23	TIP POINT FOR CF
28	1	21-BAS-18CT	BASE SECTION
29	1	21-MID-18CT	Mid Section (Includes Detail E)
30	1	21-TIP-18CT	Tip Section (Includes Detail C)
31	2	132-000-RH	10-32 NUT
32	1	375-0185-S1	WASHER



Detail F

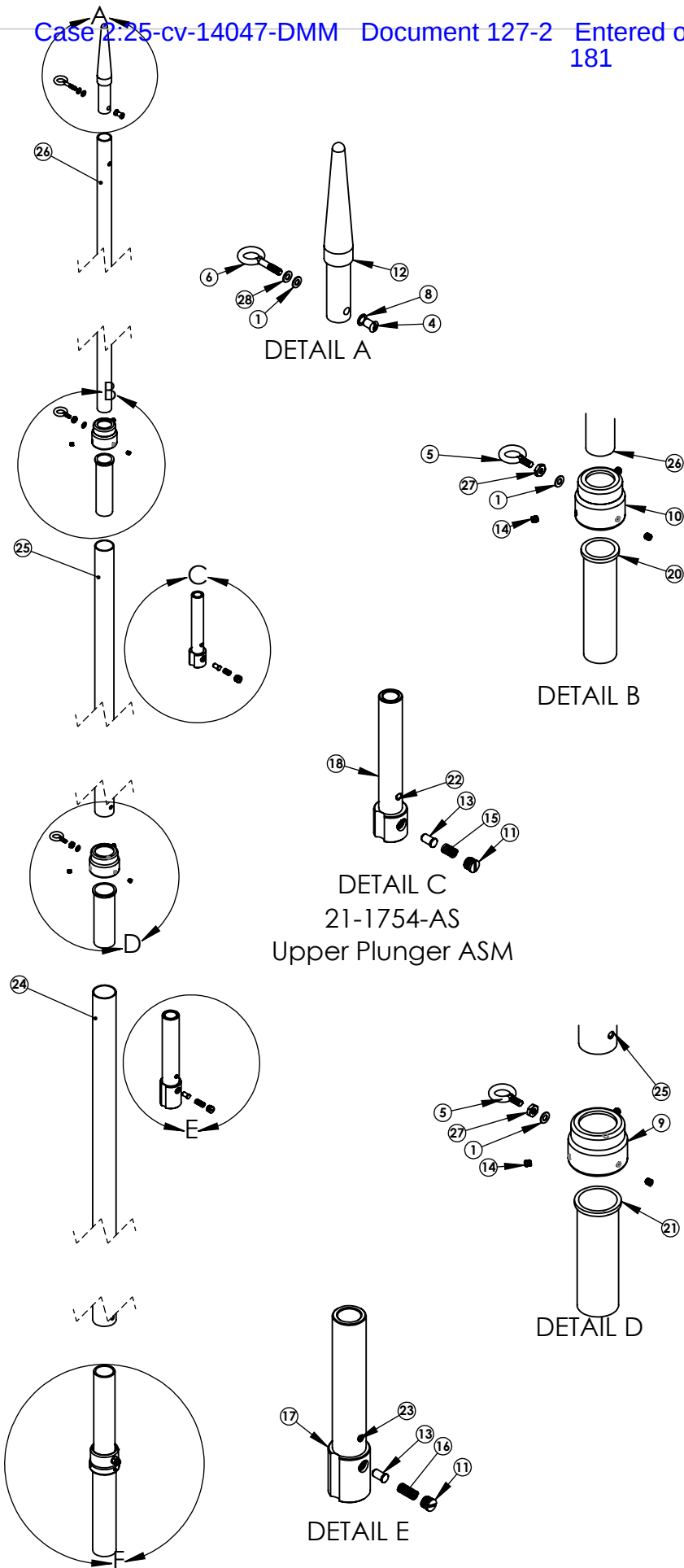
CA-0156-AS  
Reinforcement Sleeve  
with Collar



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**A0-1800-CFT**  
**Parts Breakdown**

RUPP002078



#	QTY	Part No	Description
1	3	03-1076-50	Nylon Washer
4	1	13-1341-40	Haylyard Lock Screw Nut (10-32)
5	2	13-1666-42	Eye Bolt, 10-32 Thread
6	1	13-1706-42	EYE BOLT 10-32 Thread
8	1	13-1843-50	.375 OD x .255 x .032 Nylon Washer
9	1	21-1645-23	Collar Large
10	1	21-1646-23	Collar Medium
11	2	21-1653-40	Shoulder Bolt
12	1	21-1655-23	Tip Point- 15/18
13	2	21-1657-AS	Plunger
14	9	19-1842-40	Set screw 10-32 Thread
15	1	21-1676-40	.300OD x .31W x .450
16	1	21-1677-40	.300OD x .35W x .660
17	1	21-1753-50	Plunger Cartridge LG
18	1	21-1754-50	Plunger Cartridge MD
20	1	21-1760-50	Tube Bushing SM
21	1	21-1761-50	Tube Bushing LG
22	1	21-1768-40	1/4-20 x .75 Socket Set Screw Cup Point
23	1	21-1769-40	1/4-20 x 1 Socket Set Screw Cup Point
24	1	21-BAS-18	Base Section
25	1	21-MID-18	Mid Section
26	1	21-TIP-18	Tip Section
27	2	132-000-RH	10-32 Nut
28	1	375-0185-S1	Washer



DETAIL F  
CA-0156-AS  
Reinforcement Sleeve with Collar

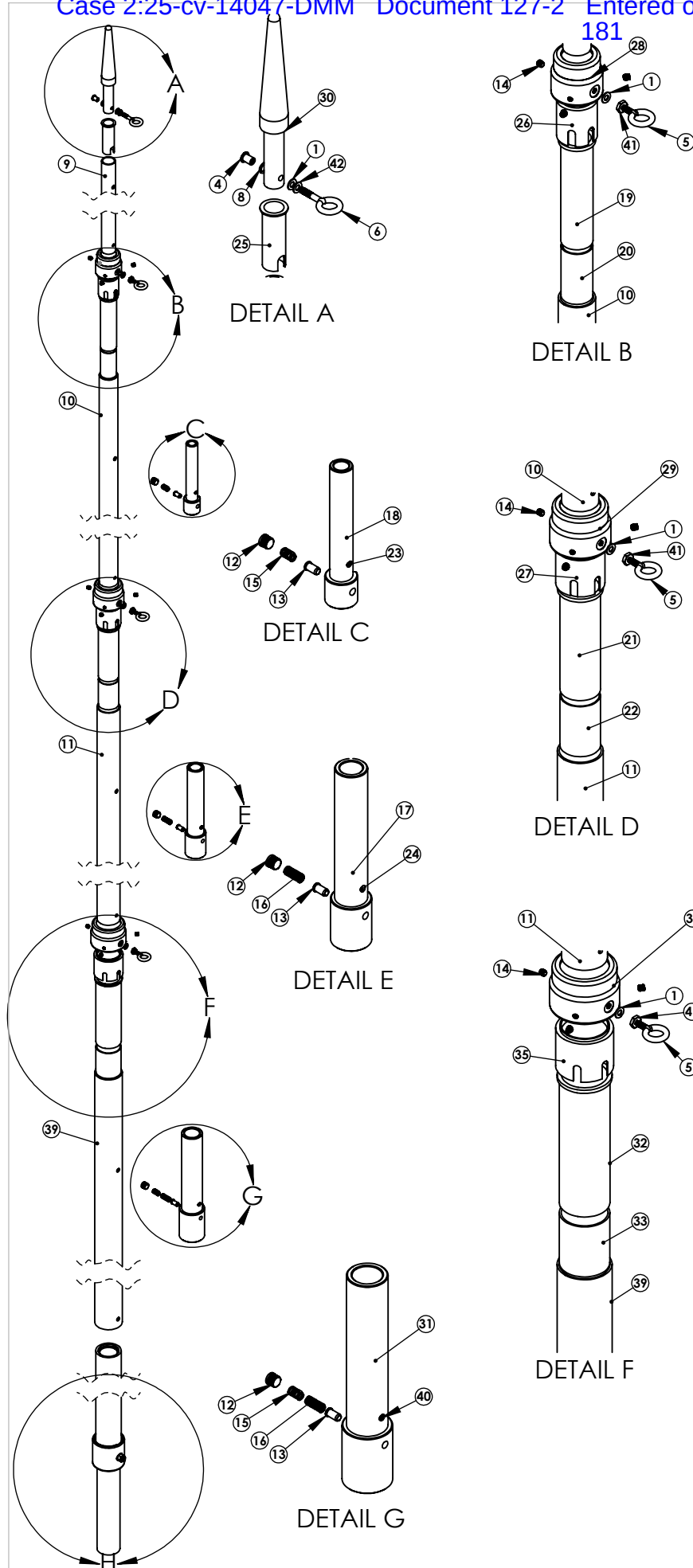


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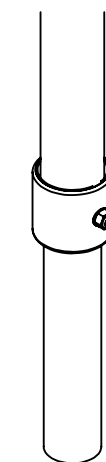
**A0-1800-TEL**  
**Parts Breakdown**

Last Updated 6/15/2023 Sheet 1 of 1

RUPP002079



#	QTY	Part No	Description
1	4	03-1076-50	Nylon Washer
4	1	13-1341-40	Haylward Lock Screw Nut (10-32)
5	3	13-1666-42	Eye Bolt, 10-32 Thread
6	1	13-1706-42	EYE BOLT 10-32 Thread
8	1	13-1843-50	.375 OD x .255 x .032 Nylon Washer
9	1	21-1364-66C	.924 x .768 x 66"
10	1	21-1366-66C	1.220 x 1.088 x 66"
11	1	21-1368-66C	1.500 x 1.368 x 66"
12	3	21-1653-40	Shoulder Bolt
13	3	21-1657-AS	Plunger
14	9	19-1842-40	Set screw 10-32 Thread
15	2	21-1676-40	.300OD x .31W x .450
16	2	21-1677-40	.300OD x .35W x .660
17	1	21-1753-50	Plunger Cartridge LG
18	1	21-1754-50	Plunger Cartridge MD
19	1	21-1760-50	Tube Bushing SM
20	1	21-1760-EXT	Stop Sleeve, MED
21	1	21-1761-50	Tube Bushing LG
22	1	21-1761-EXT	Stop Sleeve, LG
23	1	21-1768-40	1/4-20 x .75 Socket Set Screw Cup Point
24	1	21-1769-40	1/4-20 x 1 Socket Set Screw Cup Point
25	1	21-1793-50	Tip Point Isolation Sleeve
26	1	21-1794-50	Isolation Spacer Medium
27	1	21-1795-50	Isolation Spacer LG
28	1	21-1796-23	Tele Collar MED CF
29	1	21-1797-23	Tele Collar LG CF
30	1	21-1800-23	Tip Point For CF
31	1	21-1824-50	Plunger Cartridge XL
32	1	21-1825-50	Tube Bushing, XL
33	1	21-1825-EXT	Stop Sleeve, LX
34	1	21-1829-23	Tele Collar XL CF
35	1	21-1826-50	Isolation Spacer, XL
39	1	21-1832-70	1.80 x 1.67 x 70"
40	1	21-1841-40	1/4-20 x 1.5 Socket Set Screw Cup Point
41	3	132-000-RH	10-32 Nut
42	1	375-0185-S1	Washer



DETAIL H

CA-0156-AS

Reinforcement Sleeve  
with Collar

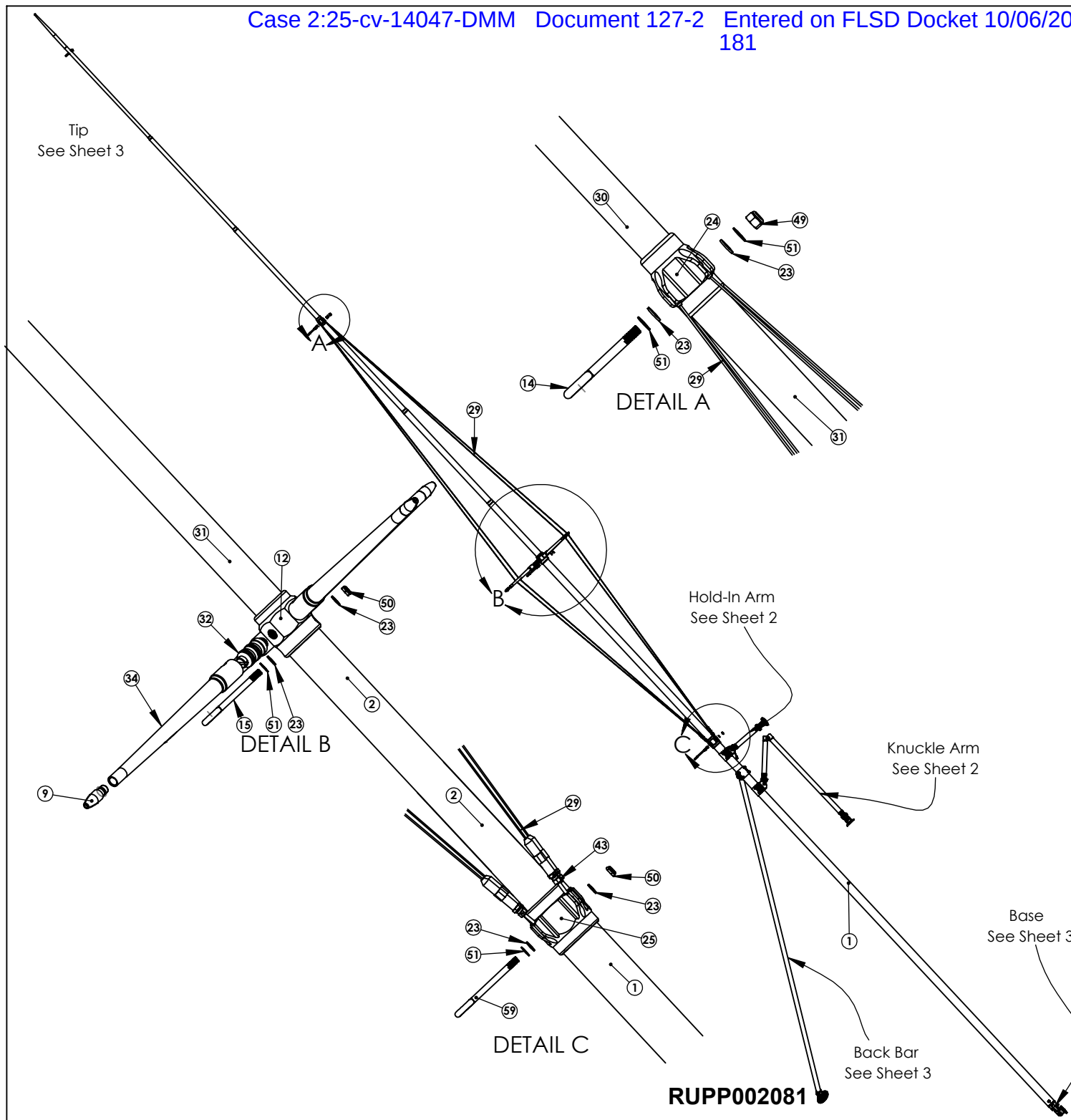
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## A0-2200-CFT Parts Breakdown

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Last Updated 6/15/2023 Sheet 1 of 1





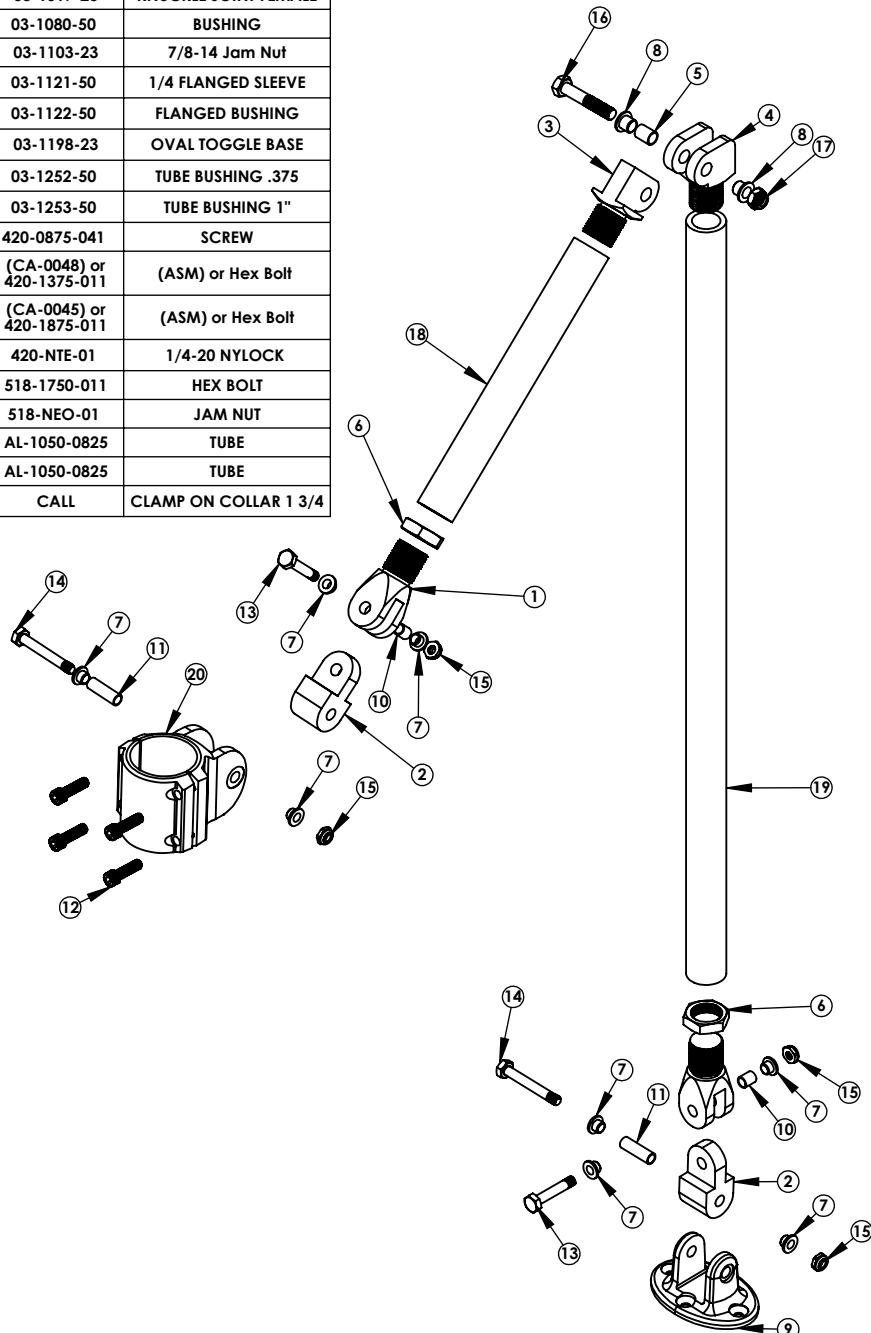
PART NO			DESCRIPTION
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1005-23	TUBE
9	4	03-1033-AS	SPREADER TIP
12	1	03-1060-23	SPREADER CENTER 1-3/4 X 1-1/2
14	1	03-1063-42	EYE BOLT
15	1	03-1064-42	EYE BOLT
23	8	03-1175-50	WASHER, NYLON
24	1	03-1190-23	TIP CABLE ANCHOR BALL TYPE
25	1	03-1191-23	BASE CABLE ANCHOR
27	4	03-1202-42	TURNBUCKLE JAM NUT 5/16-24 X 3/8
29	4	03-1211-40	CABLE ASM
30	1	03-1239-23	DRAWN STEPPED TUBE 15' 2 PC SECTION 98" 3/4 X 1-1/16
31	1	03-1240-23	DRAWN STEPPED TUBE 15' 2PC SECTION 90" 1-1/4 X 1-1/2
32	4	03-1243-AS	SPREADER "O" RING STUD
34	4	03-1248-23	9" SPREADER TUBE
43	4	203-1315-00	TURNBUCKLE BALL SHANK
49	1	420-NEO-01	1/4-20 NYLOCK NUT
50	14	420-NTE-01	1/4-20 NYLOCK
51	6	500-250-S1	1/2 X 1/4 WASHER
59	1	03-1065-42	EYE BOLT
60	1	518-1750-011	HEX BOLT



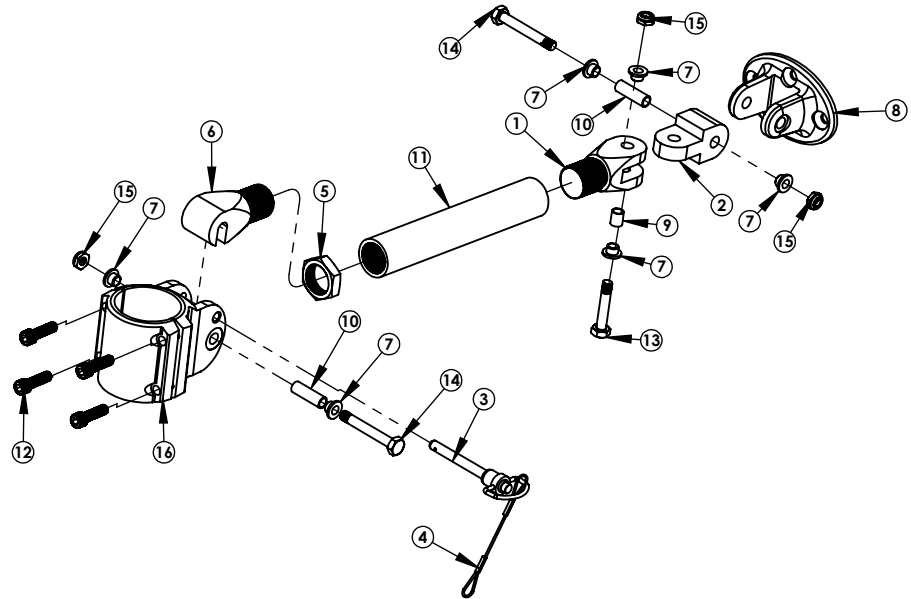
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**A1-0010-SPL**  
**Parts Breakdown**

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



RUPP002082



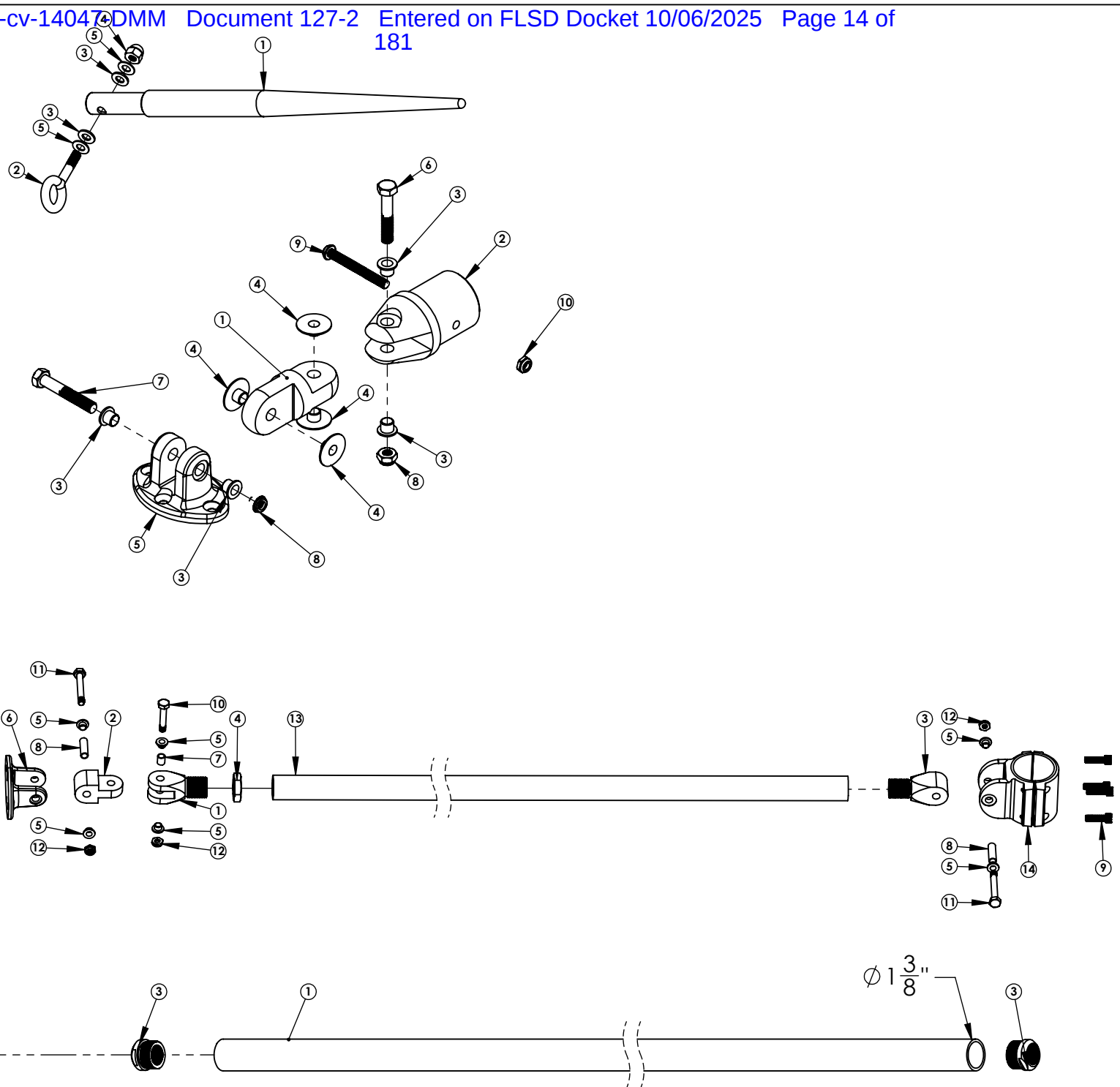
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

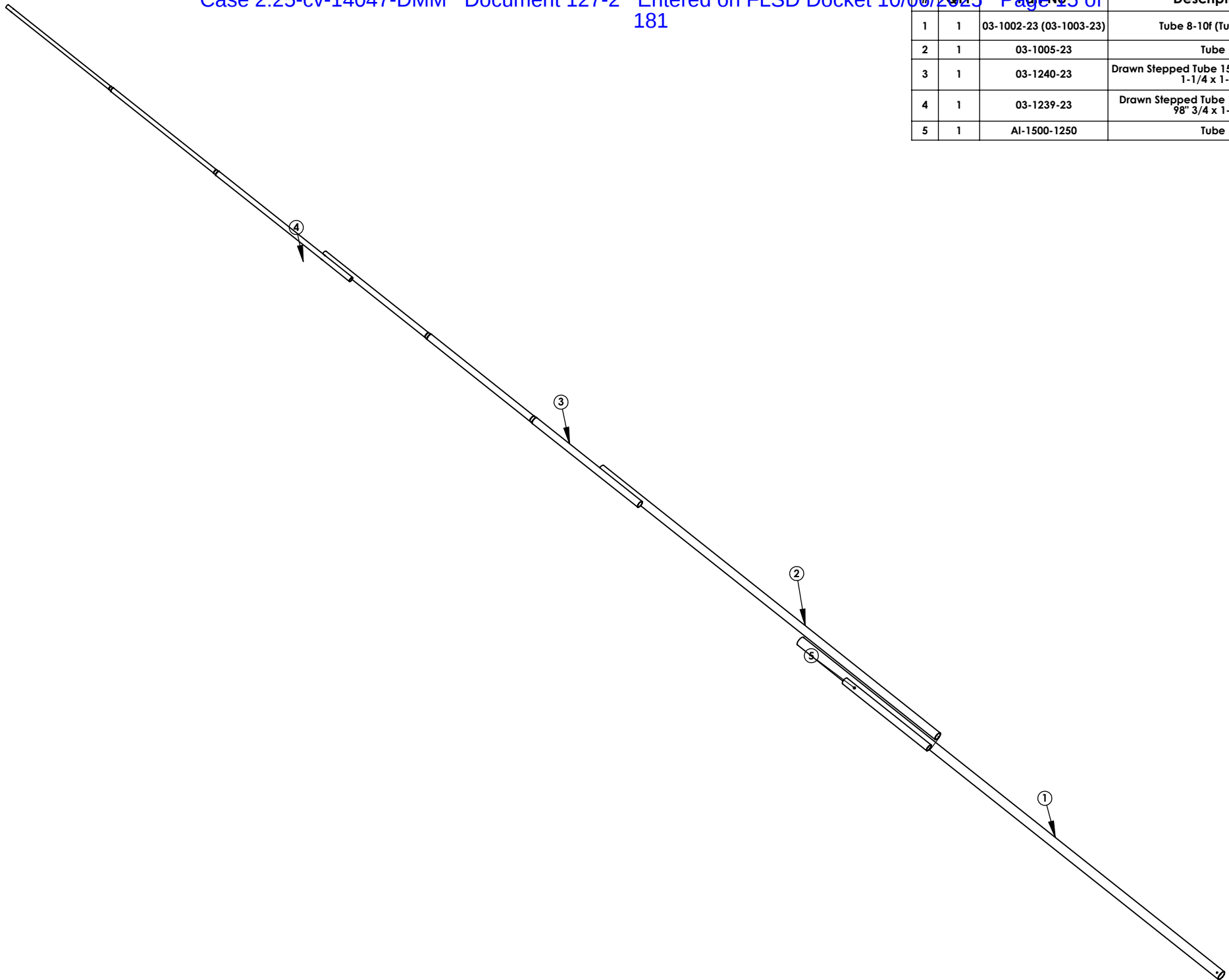
Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002083

Ø 1 3/8"

Part No			Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
5	1	AI-1500-1250	Tube



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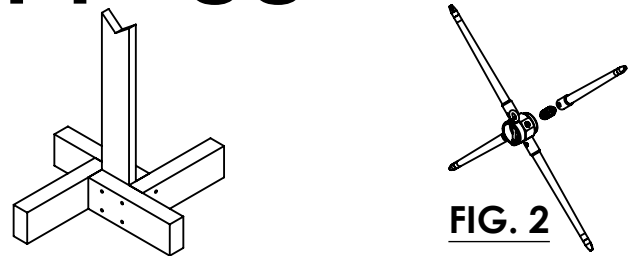
**RUPP MARINE INC**  
PORT SALERNO, FL.

# ASSEMBLY INSTRUCTIONS FOR 1 SPREADER

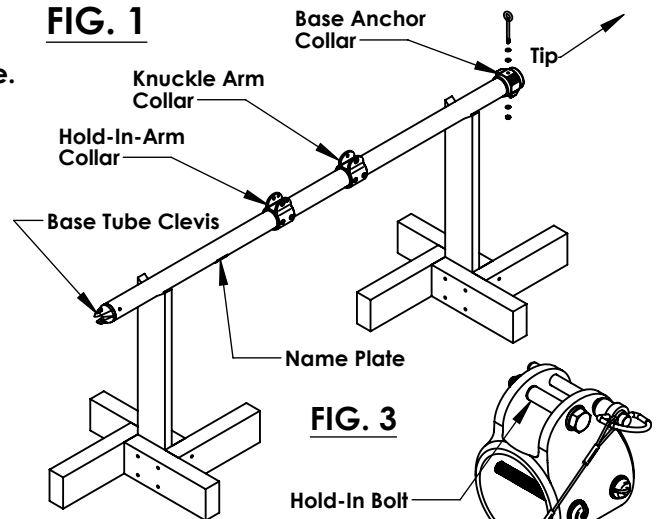
## Rupprigger

To assist in assembly construct 2 or 3 stands from 2x4's as shown in Fig. 1.

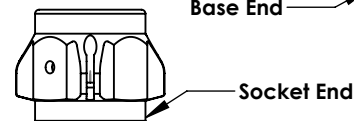
1. Preassemble spreader assembly with spreader tubes. See Fig. 2 (Lubricate "O"Rings for easier installation).
2. Layout 2" dia base tube on assembly stands with serial no. plate down. See Fig. 3
3. Remove eye bolt, SS washer, nylon washers and nut from base anchor collar. Keep handy for reassembly on base tube.
4. Over the open end of base tube, slide on these parts in order: Hold-in-arm collar, (Hold in bolt toward base tube clevis. See Fig 3A). Knuckle arm collar. Base anchor collar (socket end away from base tube clevis. See Fig 3B).
5. Align base anchor collar with pre-drilled holes near the end of the base tube. The referenced socket end of the base anchor collar (See Fig. 3B) will be flush to base tube end.
6. Insert double drilled end of 1-3/4" second stage tube into the open end of the 2" base tube. Align the first hole on this tube with the hole in the base anchor collar. Secure with eye bolt assembly removed prior from the base anchor collar. See Fig. 5A for typical eye bolt assy. NOTE: Eye bolts to be on the opposite side of the base tube as the name plate.
7. Over the open end of the second stage tube, slide on back bar collar. Orient ears up and in line with eye bolt in the base anchor collar. See Fig. 4. Move assembly stand to end of second stage tube.
8. Place spreader assembly over the end of the second stage tube. Insert the large end of the 90" stepped tube into the spreader assembly. Align holes and secure with eye bolt assembly removed prior.
9. Attach tip anchor collar to end of 90" stepped tube. See Fig. 5A. Next insert the 98" stepped tube. Align holes and secure with eyebolt assembly removed prior. Finish by placing tip point into the end of the outrigger and fasten with eye bolt assembly. See Fig. 5B. Be certain all eye bolts are on the same side of your Rupprigger.



**FIG. 1**

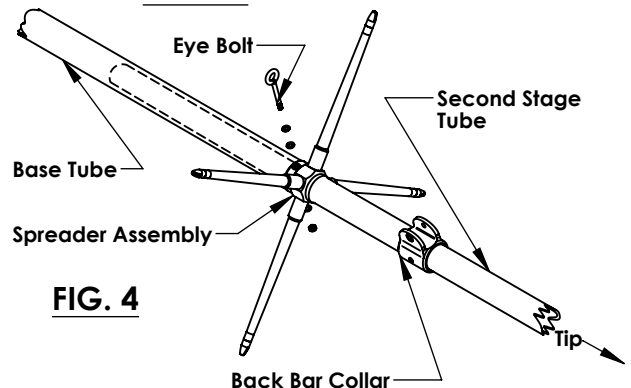


**FIG. 3**

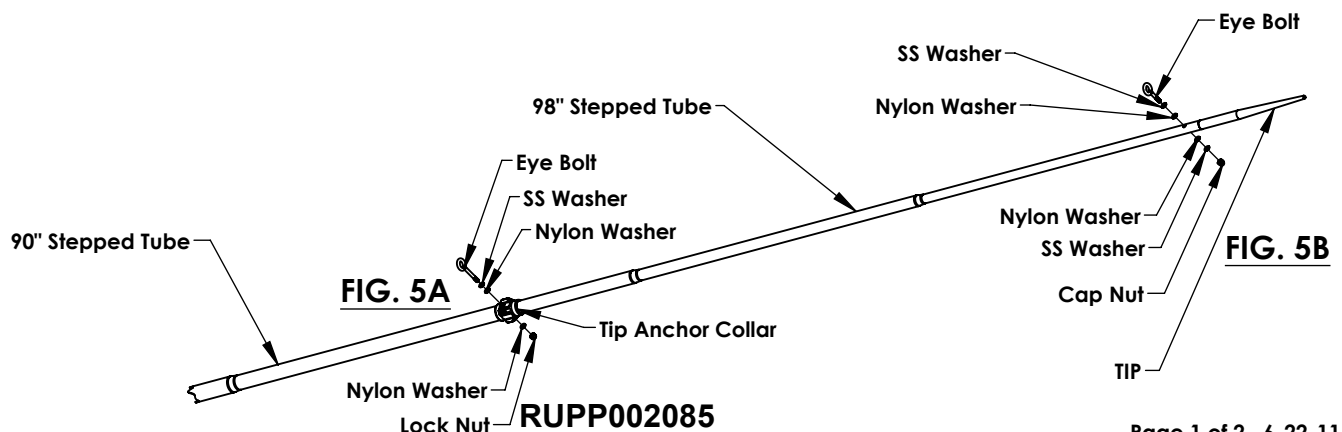


**FIG. 3A**

**FIG. 3B**



**FIG. 4**



**FIG. 5A**

**FIG. 5B**

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PORT SALERNO, FL.

**10. Installation and adjustment of Rupp Lock-Ball and Socket cable system.**

- A. Slide turnbuckle end of cable assembly into slot on the base anchor collar. See Fig. 7
- B. Insert Lock-Ball, at opposite end of cable, into the tip anchor collar. See Fig. 8.
- C. Stretch cables through slots in spreader tips and hand tighten turnbuckles. See Fig. 6.

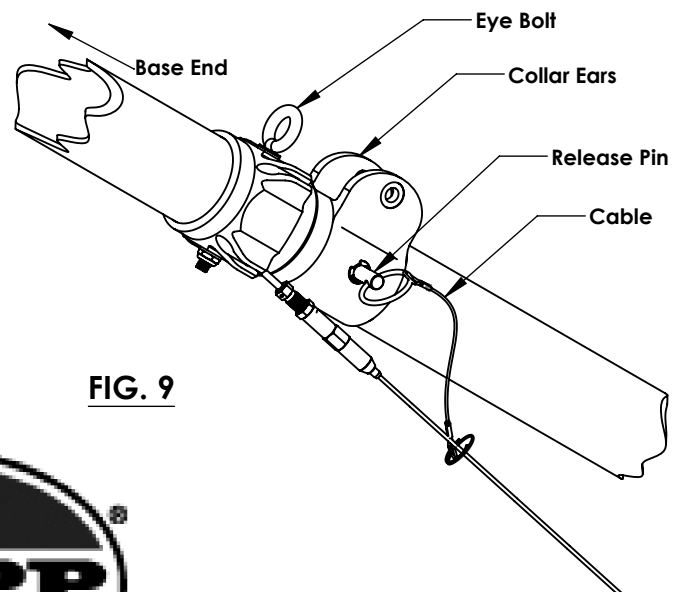
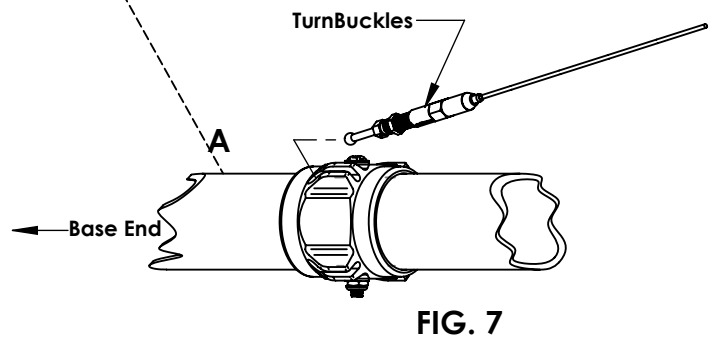
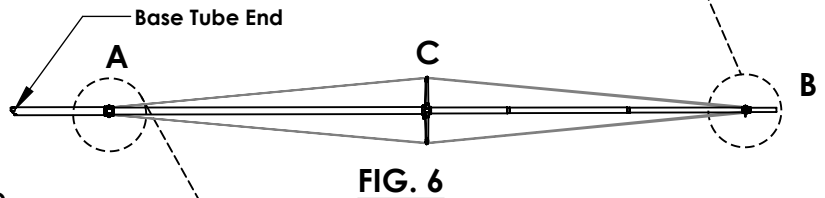
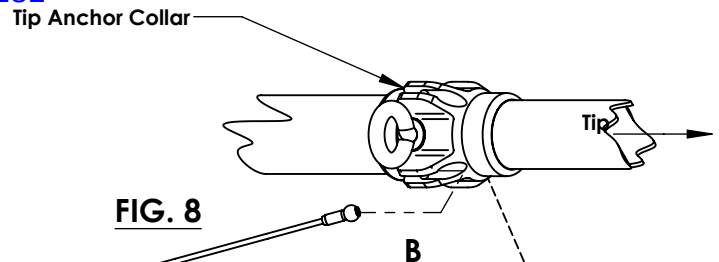
**CAUTION: DO NOT ROTATE BARREL OF TURNBUCKLE. HOLD BARREL WHILE TIGHTENING LOCK-BALL END.**

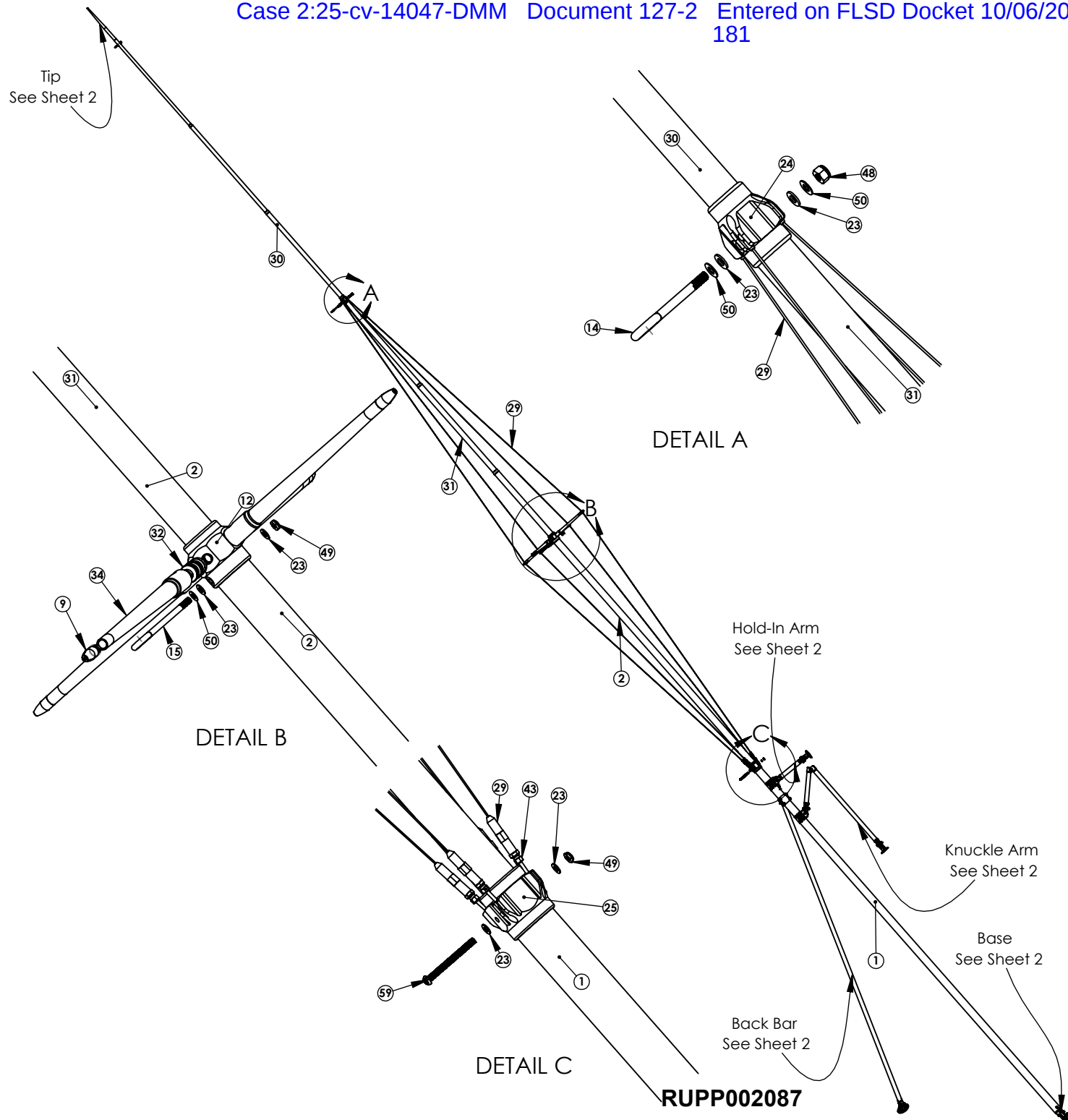
- D. Place drop of Loc-Tite on turnbuckle threads and tighten each turnbuckle three full turns. Use the punch mark on the hex flat of the turnbuckle ball shank as a reference when tightening. Adjust individual turnbuckles to correct any bowing of the outrigger and continue tightening all around. Check for straightness frequently while tightening until all cables are equally tight and great effort is required to pull cable from slots in spreader tips.

11. Position back bar slide collar as shown in Fig. 9 with the collar ears on the same side of outrigger as eye bolts. See Fig. 9. Insert 5/16" dia. quick release pin through holes in collar and pre-drilled hole in the second stage tube. Head of release pin to the cockpit of vessel for access when installed.

12. Clip 4" cable attached to quick release pin around turnbuckle away from collar ears. See Fig 9.

13. Assembly of your Rupprigger is now complete and ready for installation.





QTY			DESCRIPTION
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1005-23	TUBE
9	4	03-1033-AS	SPREADER TIP
12	1	03-1060-23	SPREADER CENTER 1-3/4 X 1-1/2
14	1	03-1063-42	EYE BOLT
15	1	03-1064-42	EYE BOLT
23	8	03-1175-50	WASHER, NYLON
24	1	03-1190-23	TIP CABLE ANCHOR BALL TYPE
25	1	03-1191-23	BASE CABLE ANCHOR
27	4	03-1202-42	TURNBUCKLE JAM NUT 5/16-24 X 3/8
29	4	03-1210-40	CABLE ASM
30	1	03-1239-23	DRAWN STEPPED TUBE 15' 2 PC SECTION 98" 3/4 X 1-1/16
31	1	03-1240-23	DRAWN STEPPED TUBE 15' 2PC SECTION 90" 1-1/4 X 1-1/2
32	4	03-1243-AS	SPREADER "O" RING STUD
34	4	03-1248-23	9" SPREADER TUBE
43	4	203-1315-00	TURNBUCKLE BALL SHANK
48	1	420-NEO-01	1/4-20 NYLOCK NUT
49	14	420-NTE-01	1/4-20 NYLOCK
50	5	500-250-S1	1/2 X 1/4 WASHER
59	1	420-2750-221	BOLT
60	1	518-1750-011	HEX BOLT

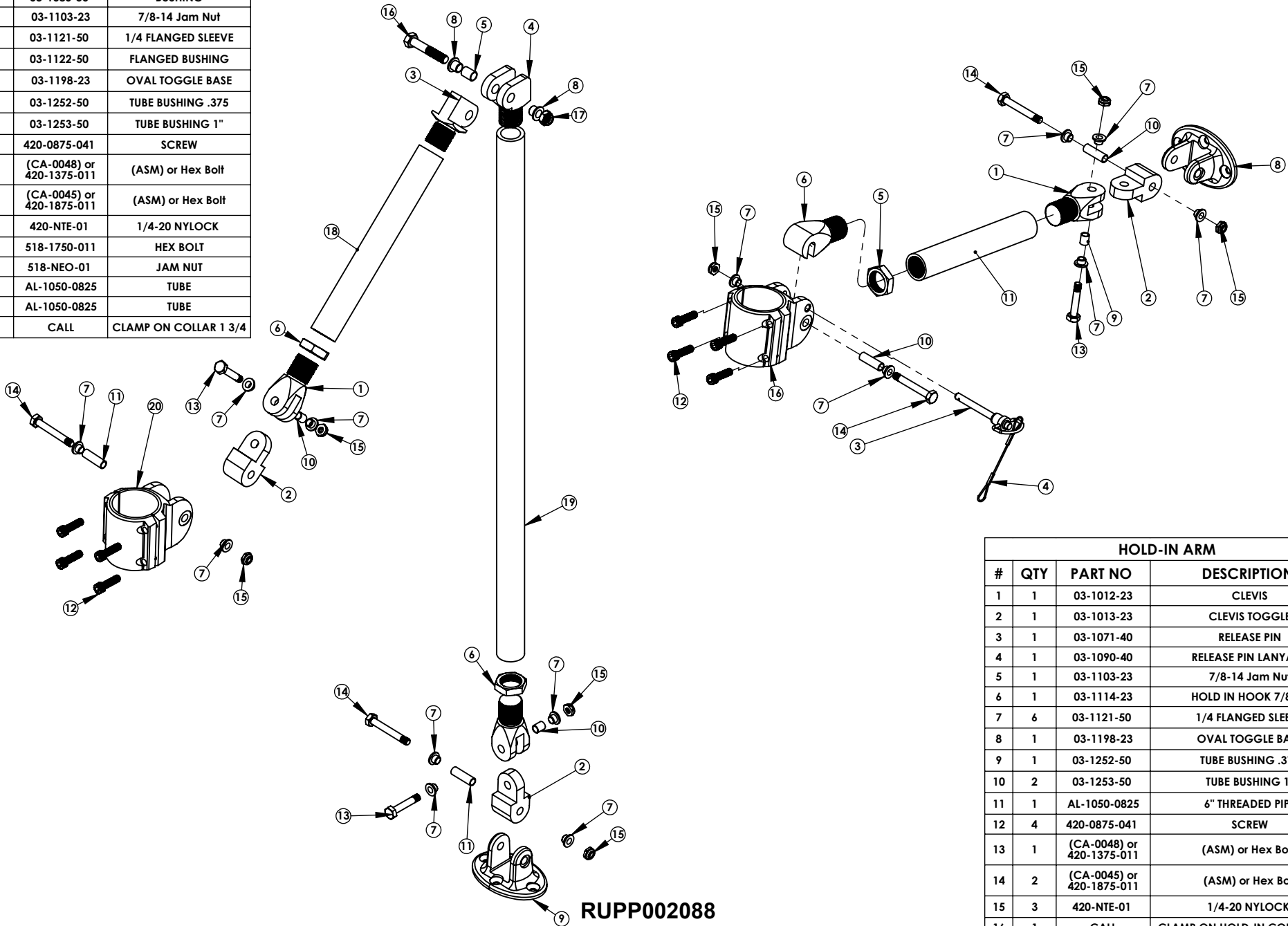


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## A1-0010-STD Parts Breakdown



KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



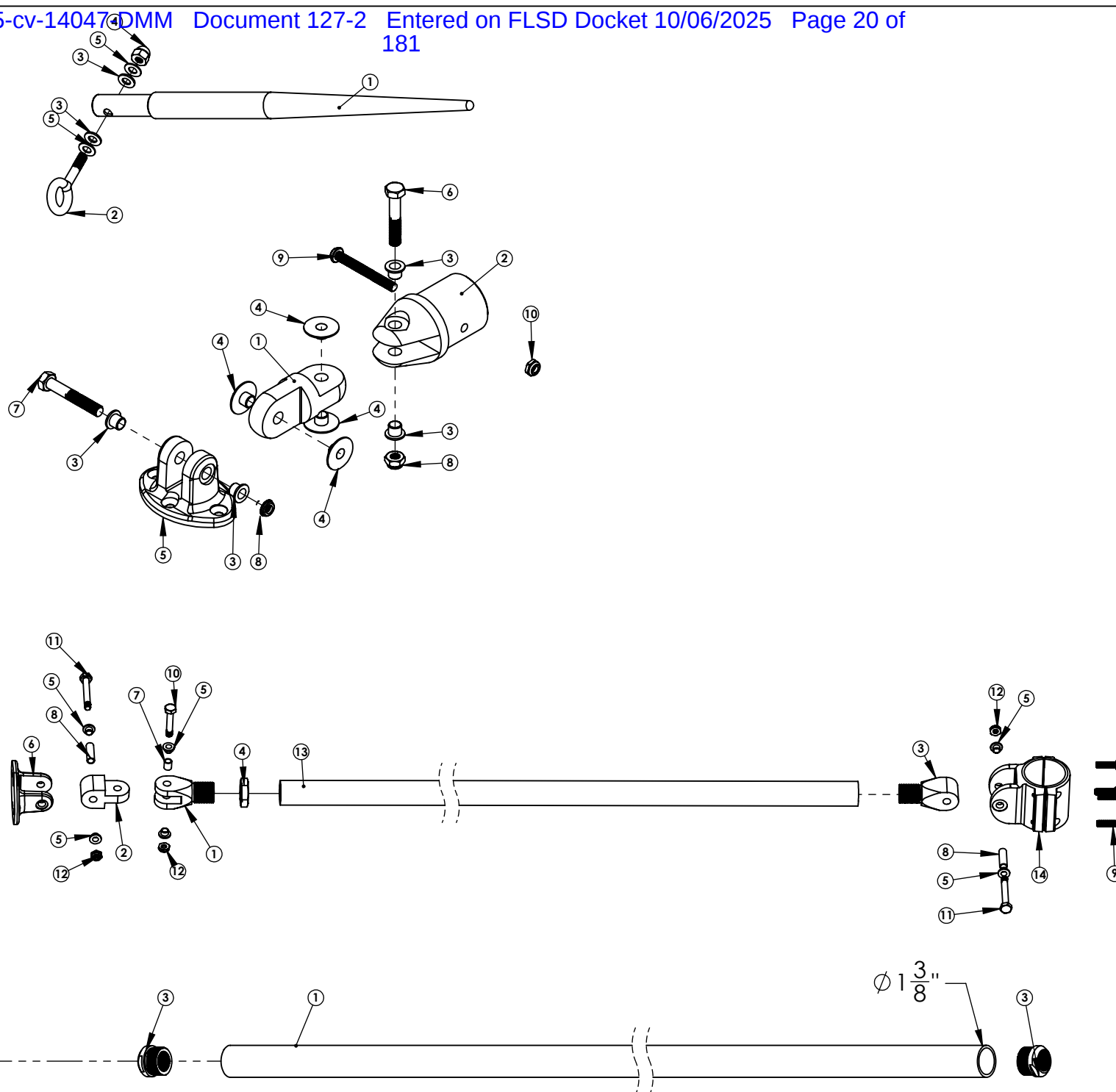
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

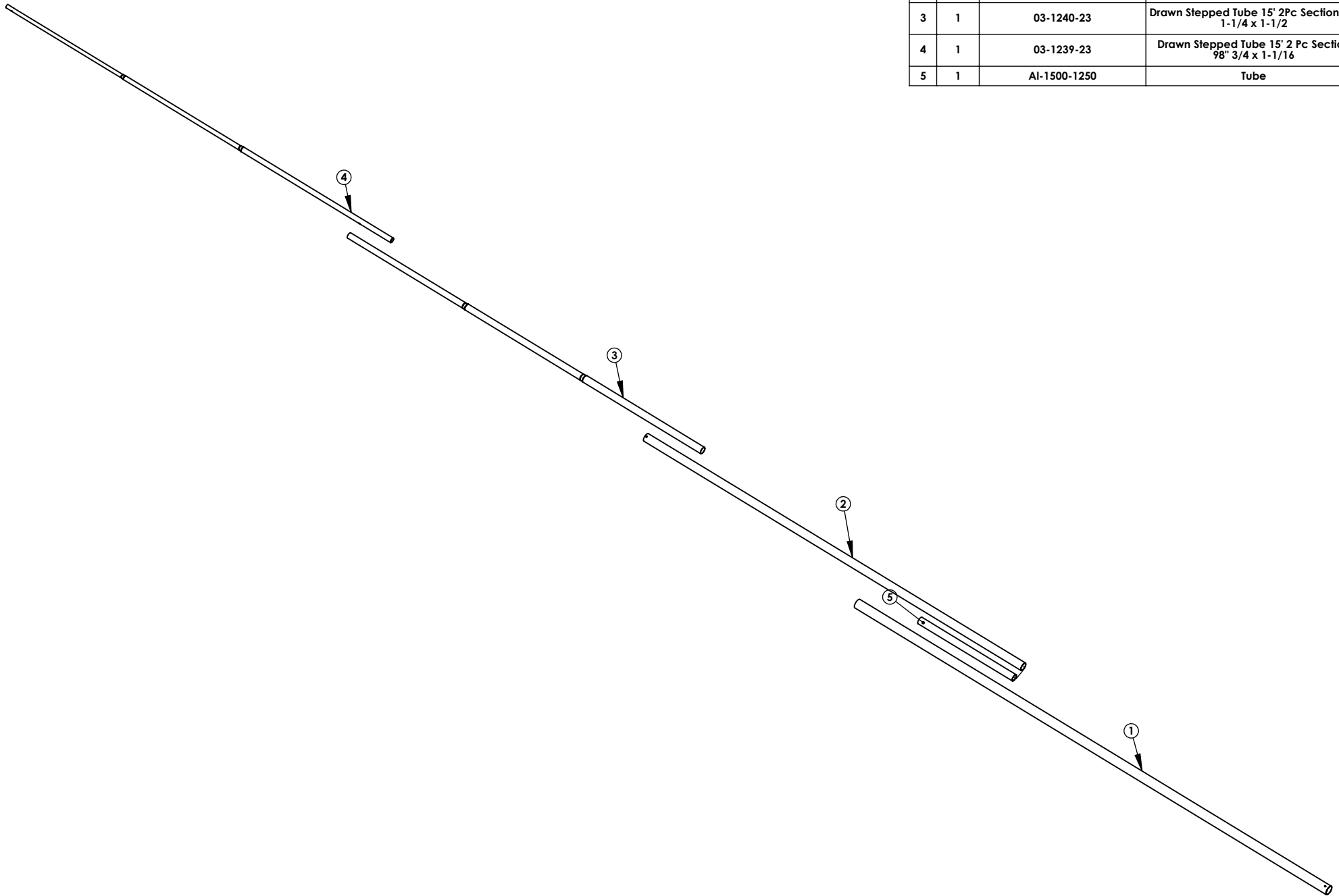
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer

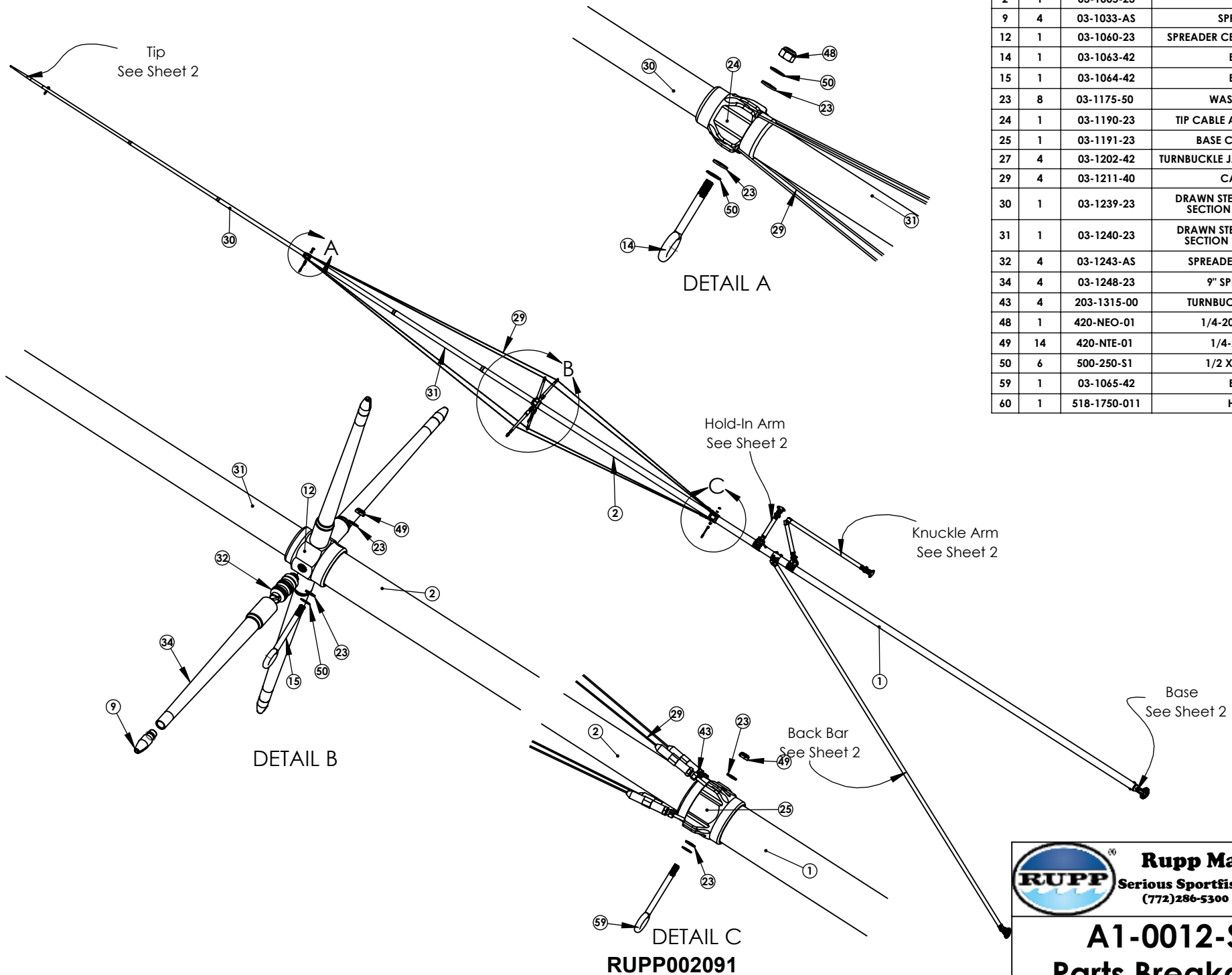


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#	Qty	Part No	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
5	1	AI-1500-1250	Tube



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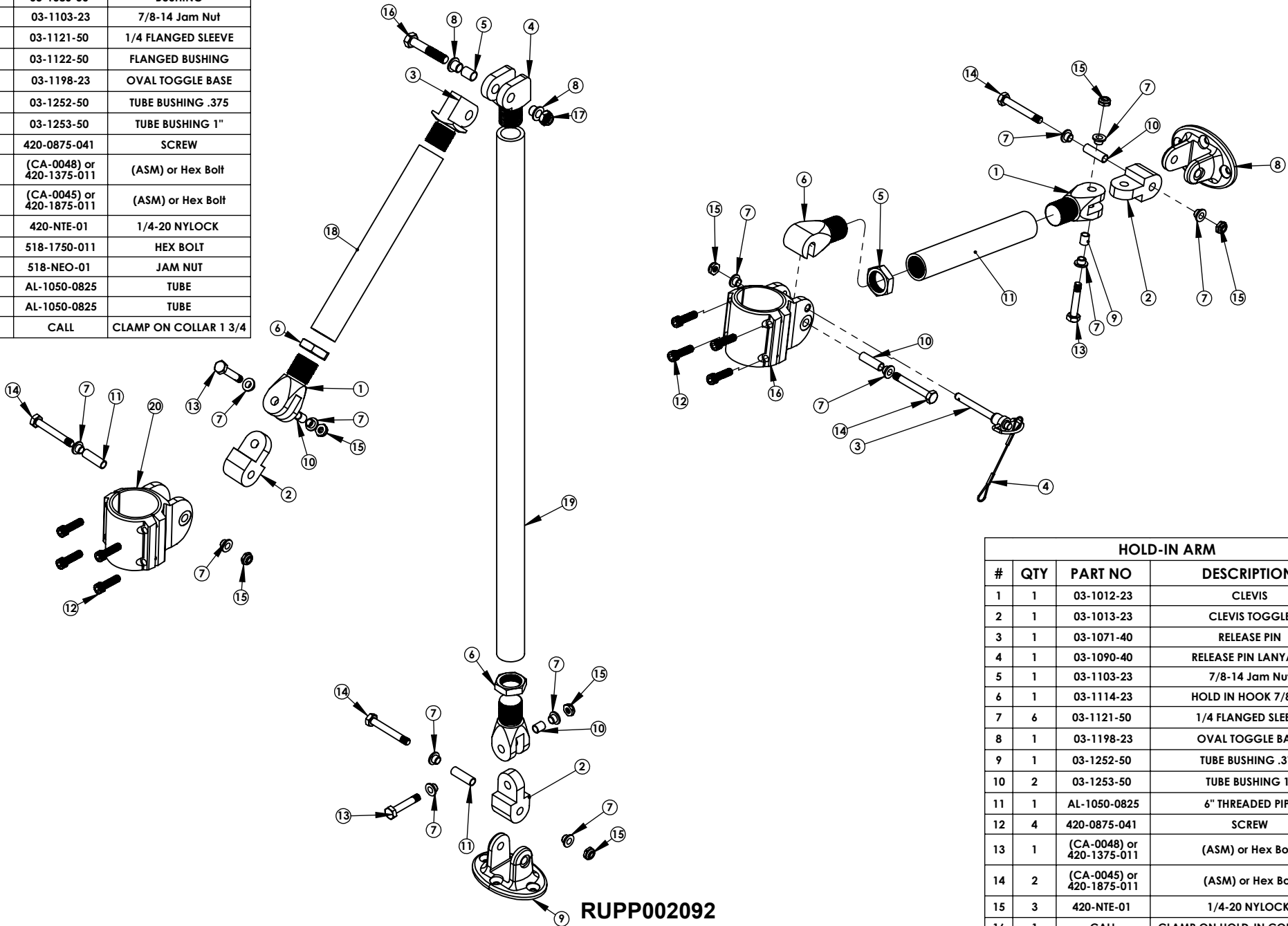
PART NO			DESCRIPTION
1	1	03-1003-23	TUBE
2	1	03-1005-23	TUBE
9	4	03-1033-AS	SPREADER TIP
12	1	03-1060-23	SPREADER CENTER 1-3/4 X 1-1/2
14	1	03-1063-42	EYE BOLT
15	1	03-1064-42	EYE BOLT
23	8	03-1175-50	WASHER, NYLON
24	1	03-1190-23	TIP CABLE ANCHOR BALL TYPE
25	1	03-1191-23	BASE CABLE ANCHOR
27	4	03-1202-42	TURNBUCKLE JAM NUT 5/16-24 X 3/8
29	4	03-1211-40	CABLE ASM
30	1	03-1239-23	DRAWN STEPPED TUBE 15' 2 PC SECTION 98" 3/4 X 1-1/16
31	1	03-1240-23	DRAWN STEPPED TUBE 15' 2PC SECTION 90" 1-1/4 X 1-1/2
32	4	03-1243-AS	SPREADER "O" RING STUD
34	4	03-1248-23	9" SPREADER TUBE
43	4	203-1315-00	TURNBUCKLE BALL SHANK
48	1	420-NEO-01	1/4-20 NYLOCK NUT
49	14	420-NTE-01	1/4-20 NYLOCK
50	6	500-250-S1	1/2 X 1/4 WASHER
59	1	03-1065-42	EYE BOLT
60	1	518-1750-011	HEX BOLT



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**A1-0012-SPL**  
**Parts Breakdown**

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

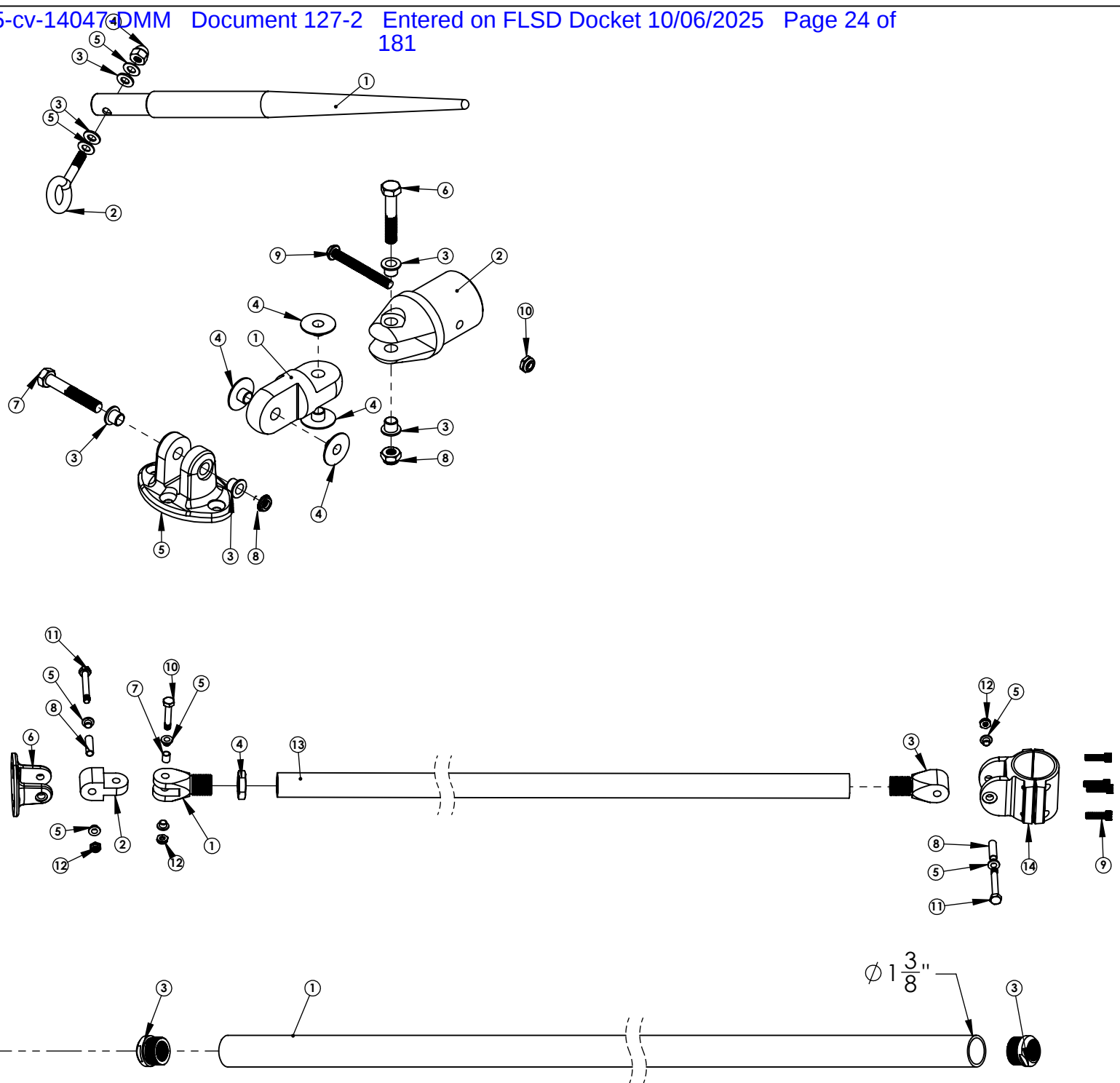
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TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

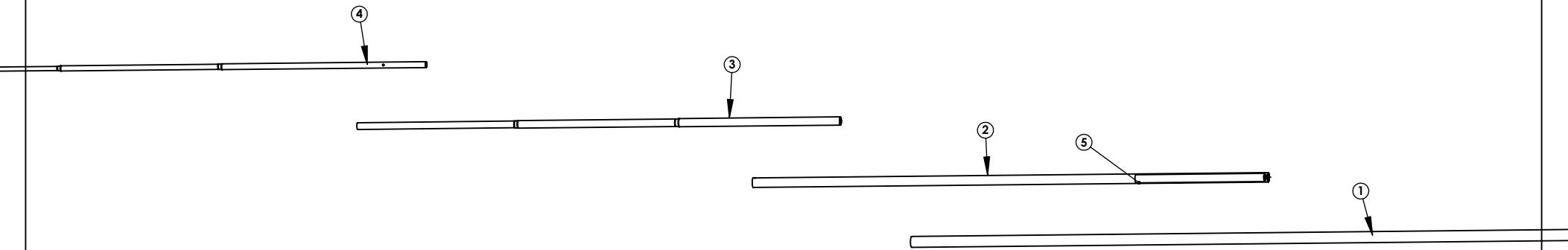
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



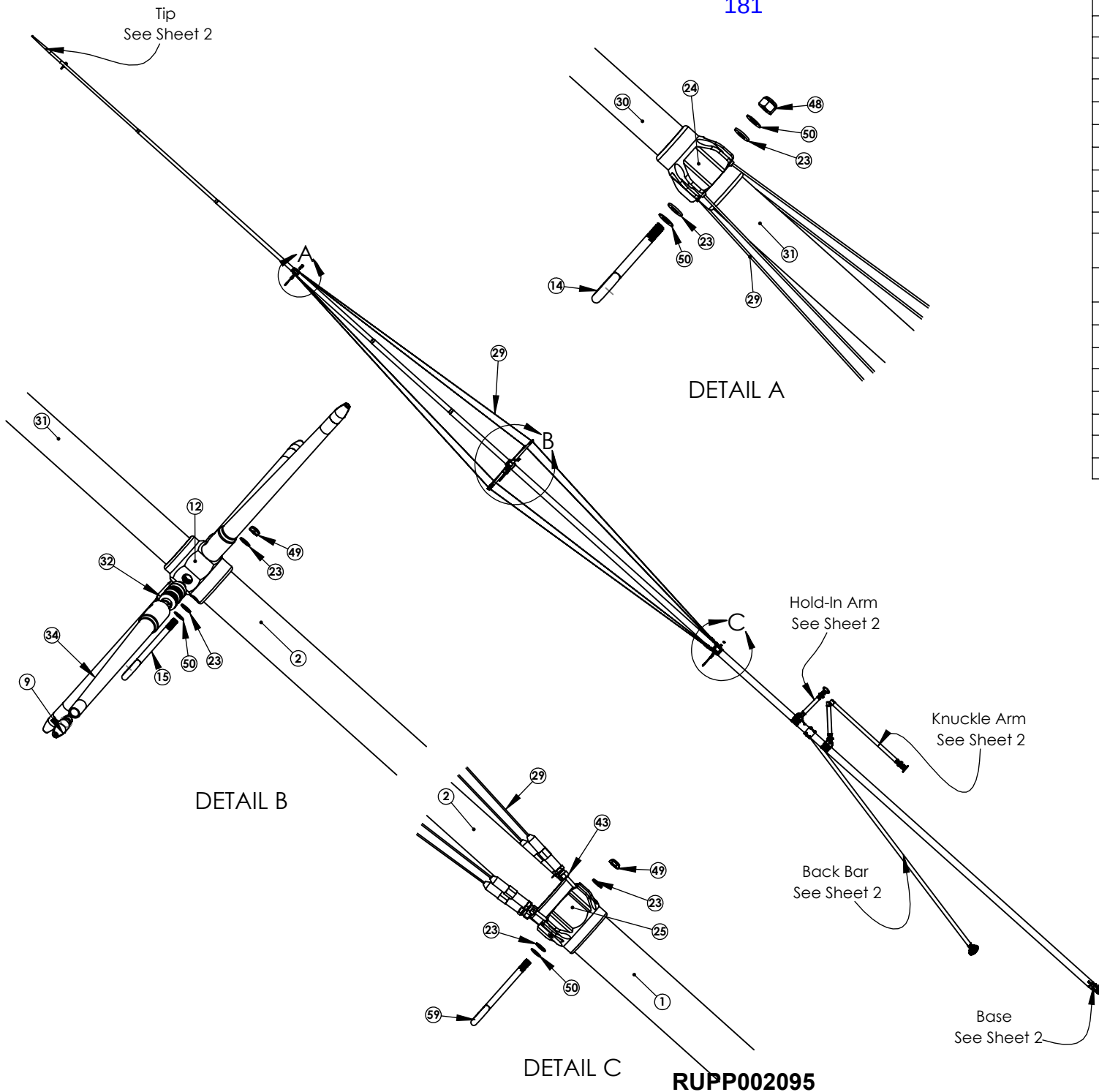
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#	QTY	Part No	Description
1	1	03-1003-23	Tube
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
5	1	AI-1500-1250	Tube



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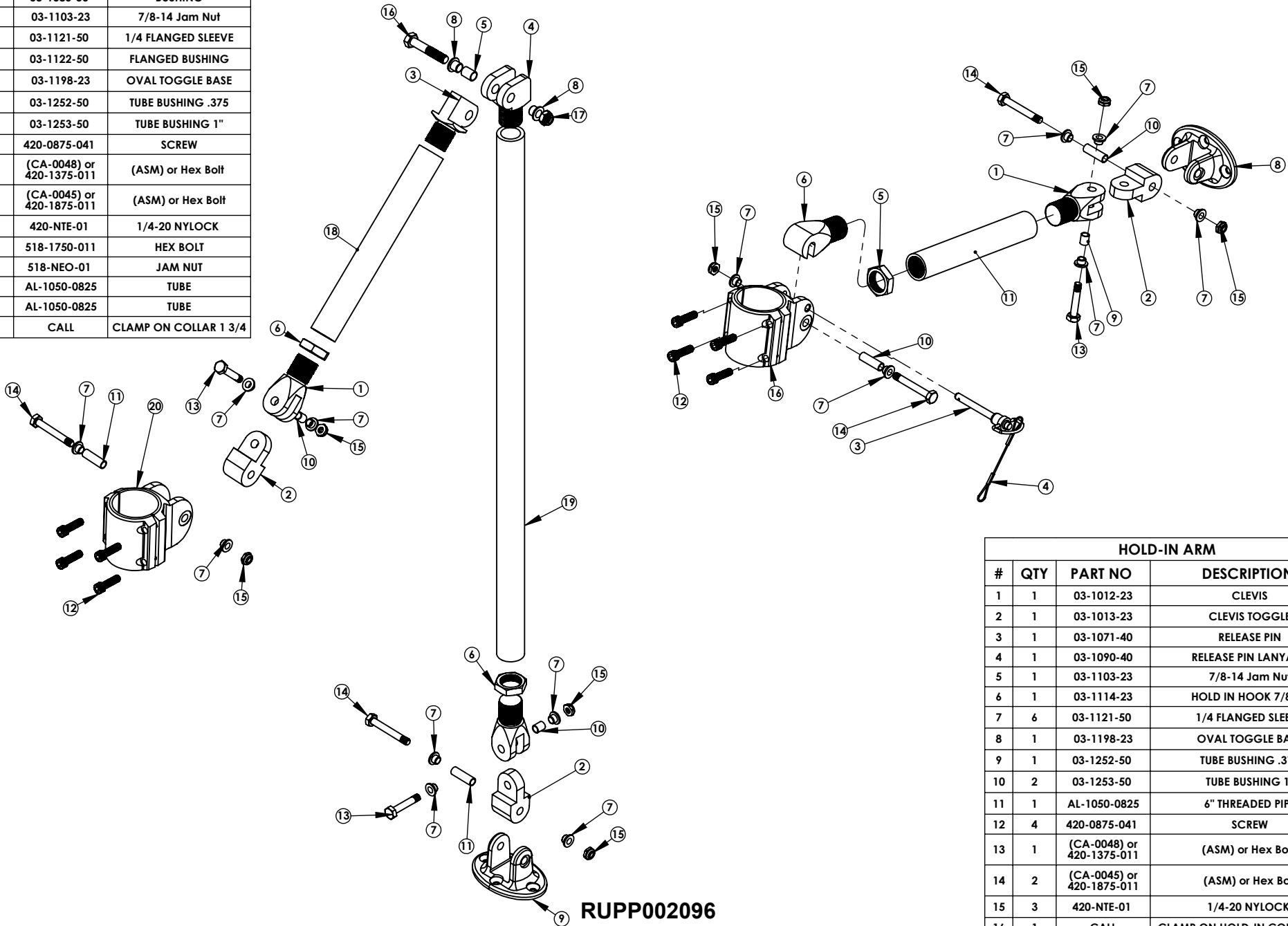
	QTY	PART NO	DESCRIPTION
1	1	03-1003-23	TUBE
2	1	03-1005-23	TUBE
9	4	03-1033-AS	SPREADER TIP
12	1	03-1060-23	SPREADER CENTER 1-3/4 X 1-1/2
14	1	03-1063-42	EYE BOLT
15	1	03-1064-42	EYE BOLT
23	8	03-1175-50	WASHER, NYLON
24	1	03-1190-23	TIP CABLE ANCHOR BALL TYPE
25	1	03-1191-23	BASE CABLE ANCHOR
27	4	03-1202-42	TURNBUCKLE JAM NUT 5/16-24 X 3/8
29	4	03-1210-40	CABLE ASM
30	1	03-1239-23	DRAWN STEPPED TUBE 15' 2 PC SECTION 98" 3/4 X 1-1/16
31	1	03-1240-23	DRAWN STEPPED TUBE 15' 2 PC SECTION 90" 1-1/4 X 1-1/2
32	4	03-1243-AS	SPREADER "O" RING STUD
34	4	03-1248-23	9" SPREADER TUBE
43	4	203-1315-00	TURNBUCKLE BALL SHANK
48	1	420-NEO-01	1/4-20 NYLOCK NUT
49	14	420-NTE-01	1/4-20 NYLOCK
50	6	500-250-S1	1/2 X 1/4 WASHER
59	1	03-1065-42	EYE BOLT
60	1	518-1750-011	HEX BOLT



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## A1-0012-STD Parts Breakdown

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



RUPP002096

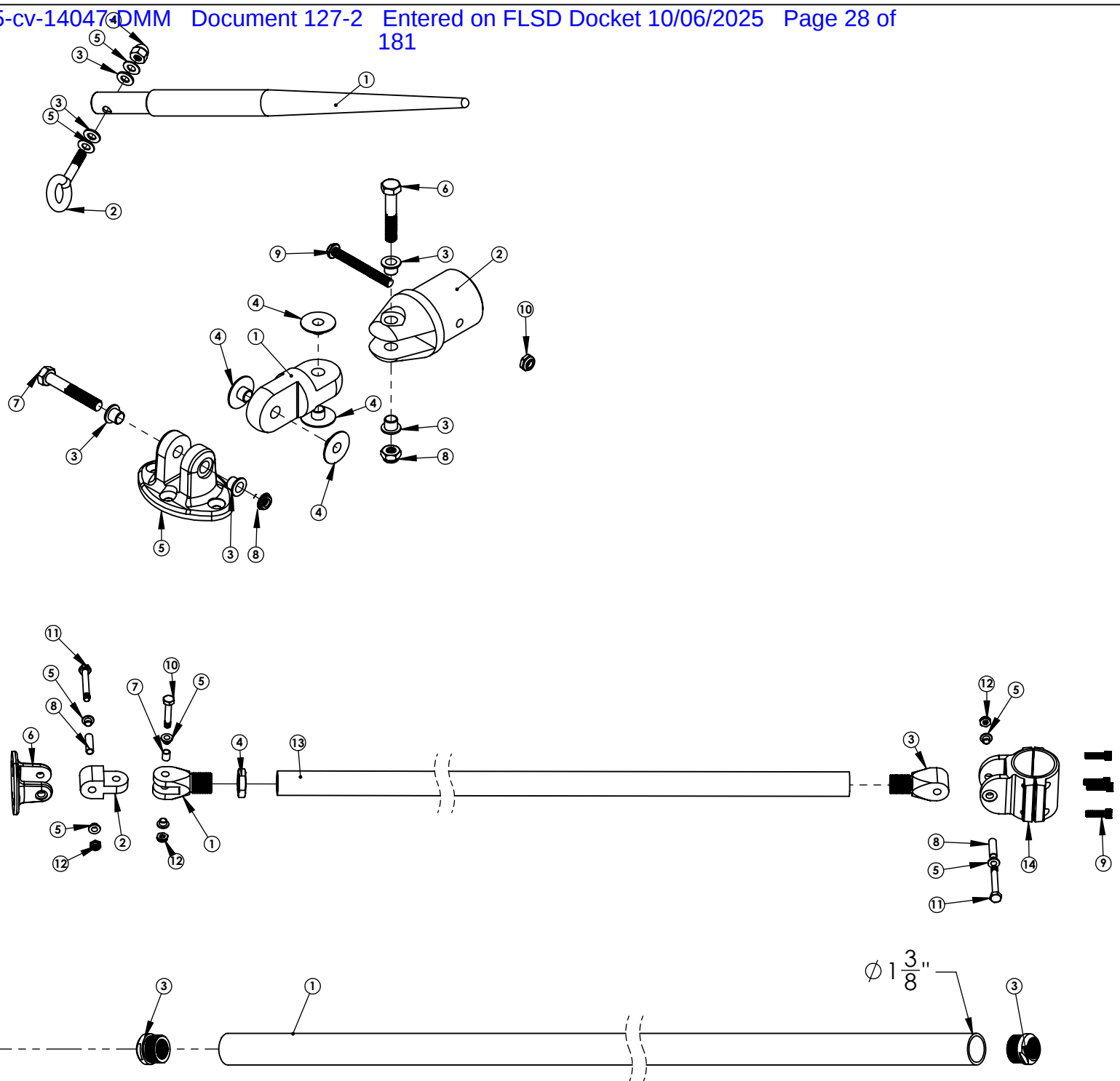
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

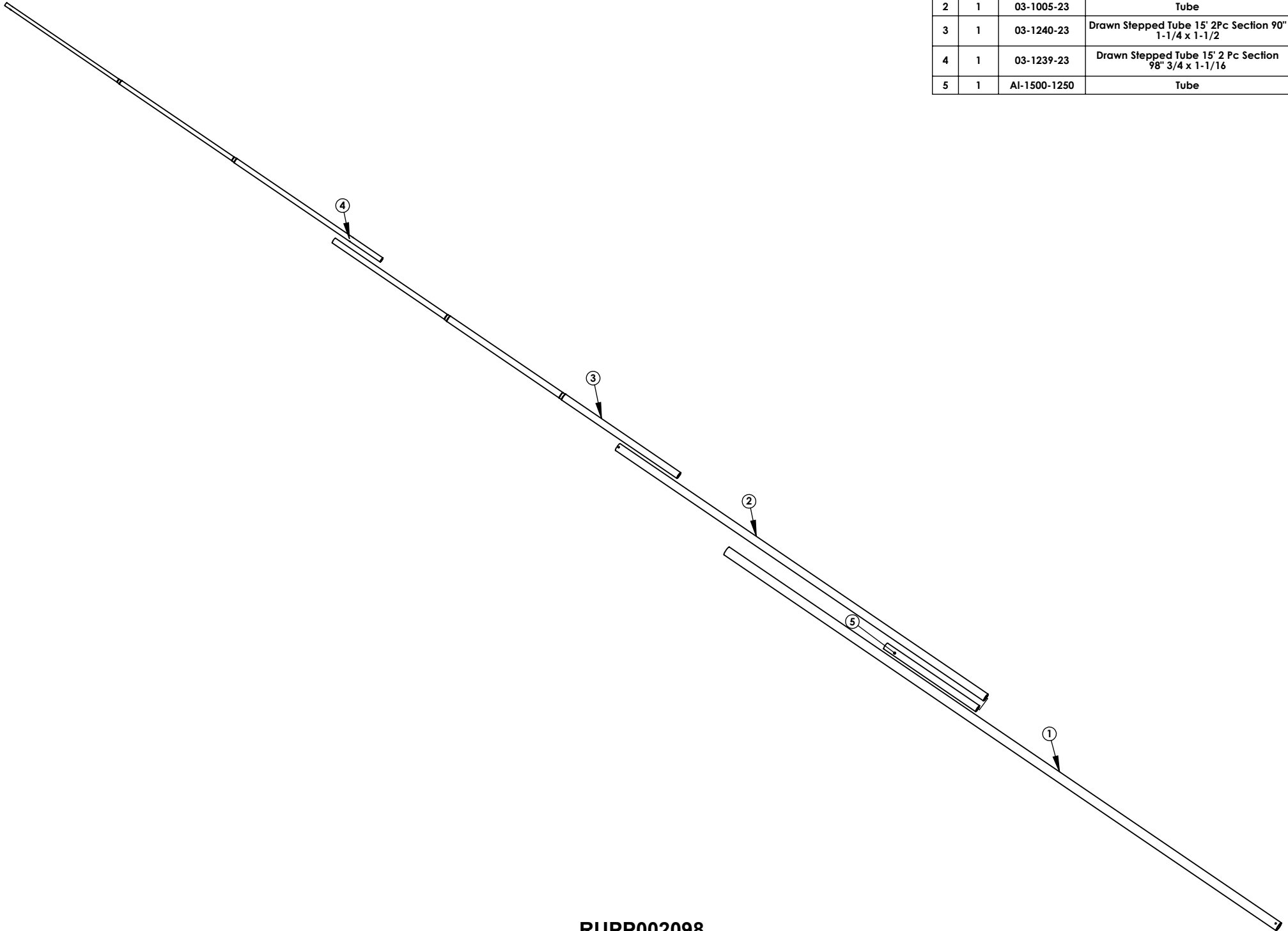
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002097

#	QTY	Part No.	Description
1	1	03-1003-23	Tube
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
5	1	AI-1500-1250	Tube



RUPP002098

## Step 6

A - Insert TurnBuckle lock-ball located on the bottom of your outrigger cable assembly into the base anchor collar sockets as shown on sheet 3.

B - Insert lock-ball of the open end of the cable into the socket on the Upper Cable Anchor assy as shown on sheet 5.

C - Stretch Cables through slots in the Spreader Tip p/n 03-1033-50 and tighten TurnBuckles to remove slack.

**CAUTION:** Do not rotate Cable Assembly; tighten using only the TurnBuckle Shank p/n 03-1201-42. Secure with p/n 03-1202-42Jam Nut.

D - Place a drop of Lock-Tite™ (recommended) on TurnBuckle threads (four locations) and tighten each TurnBuckle three full turns, checking for straightness of Outrigger Tubes. Adjust individual TurnBuckles to correct any bowing of Outrigger Tubes. Check for straightness frequently while tightening untill all cables are equally tight and a REASONABLE effort is required to pull cable from the Spreader Tip slots. Over or under tightening of Outrigger Cables will cause premature rigger failure.

## Step 5

Attach Outrigger Tip Assy using hardware as shown on sheet 6 of attached diagram.

**NOTE:** All Eye Bolts on the assembled outrigger should now be facing the same direction.

## Step 4

Attach Upper cable Anchor by removing Eye Bolt and corresponding hardware, sliding the Upper Anchor Collar over tip of tube to predrilled holes and reattach as shown on sheet 5 of attached diagram

## Step 3

Assemble Star Spreader by screwing Spreader Tubes into Spreader Center as shown on sheet 4 of attached diagram

**ASSEMBLY NOTE:** Repeat steps 1-6 for the scond Rupprigger, taking into consideration the location of the labels on the Outrigger Tubes in order to ensure astethetic similarity.

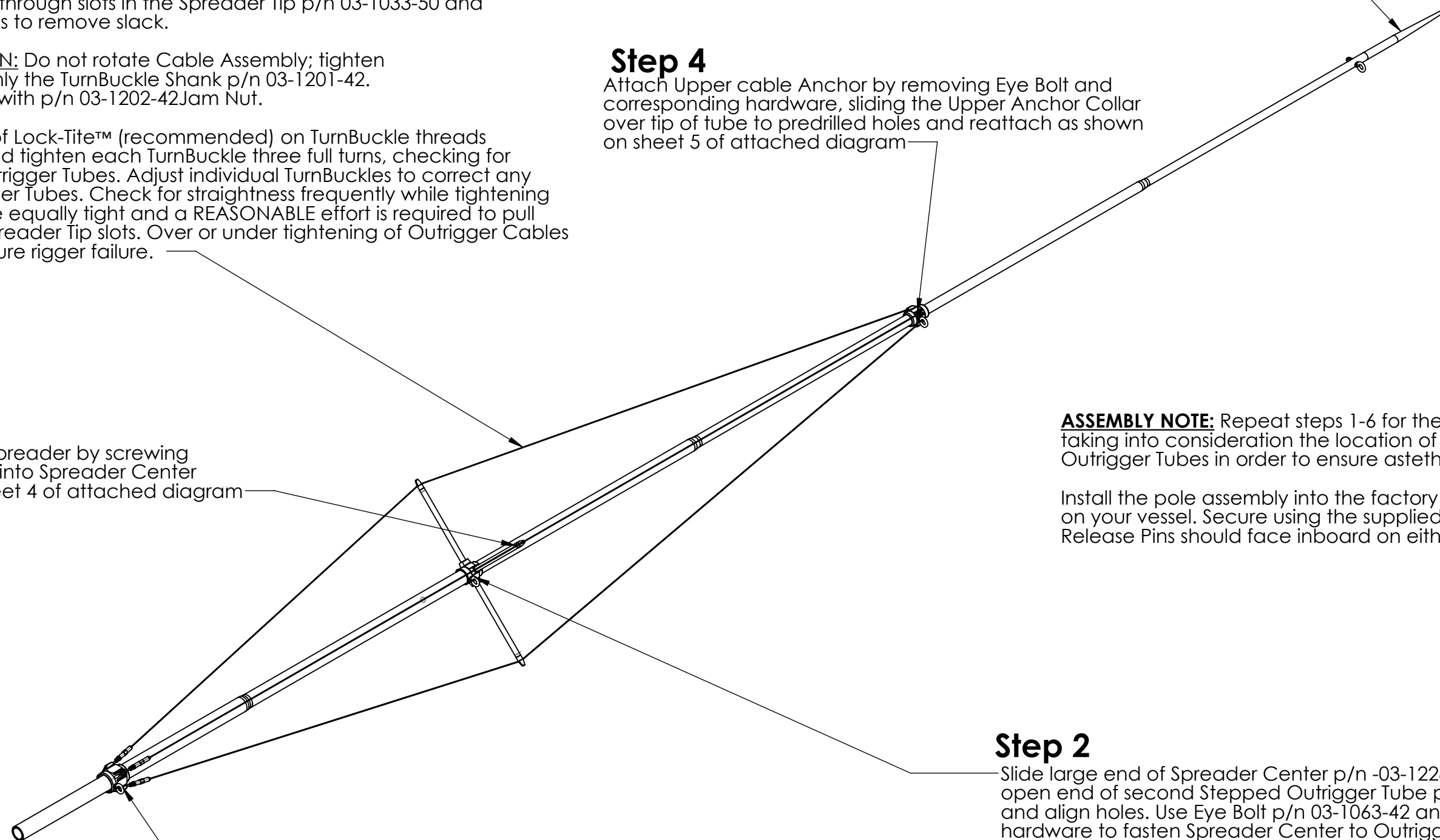
Install the pole assembly into the factory installed base tubes on your vessel. Secure using the supplied Quick Release Pins. Release Pins should face inboard on either side side of boat.

## Step 2

Slide large end of Spreader Center p/n -03-1228-23 over open end of second Stepped Outrigger Tube p/n 03-1236-23 and align holes. Use Eye Bolt p/n 03-1063-42 and corresponding hardware to fasten Spreader Center to Outrigger Tube as shown on sheet 4 of attached diagram

## Step 1

Thru bolt Base Anchor Collar p/n 03-1208-23 to reinforced lower outrigger tube p/n 03-1237-23 through the pre-drilled hole. Use Eye Bolt p/n 03-1064-42 and corresponding hardware as shown on sheet 3 of attached diagram.



RUPP002099



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**A1-1500-MIN INSTALL**  
**Parts Breakdown**

Last Updated 5/2/2019 Sheet 1 of 1

# Step 6

A - Insert TurnBuckle lock-ball located on the botton of your outrigger cable assembly into the base anchor collar sockets as shown on sheet 3.

B - Insert lock-ball of the open end of the cable into the socket on the Upper Cable Anchor assy as shown on sheet 5.

C - Strech Cables through slots in the Spreader Tip p/n 03-1033-50 and tighten TurnBuckles to remove slack.

**CAUTION:** Do not rotate Cable Assembly; tighten using only the TurnBuckle Shank p/n 03-1201-42. Secure with p/n 03-1202-42Jam Nut.

D - Place a drop of Lock-Tite™ (recommended) on TurnBuckle threads (four locations) and tighten each TurnBuckle three full turns, checking for straightness of Outrigger Tubes. Adjust individual TurnBuckles to correct any bowing of Outrigger Tubes. Check for straightness frequently while tightening untill all cables are equally tight and a REASONABLE effort is required to pull cable from the Spreader Tip slots. Over or under tightening of Outrigger Cables will cause premature rigger failure.

# Step 3

Assemble Star Spreader by screwing Spreader Tubes into Spreader Center as shown on sheet 4 of attached diagram

# Step 5

Attach Outrigger Tip Assy using hardware as shown on sheet 6 of attached diagram.  
**NOTE:** All Eye Bolts on the assembled outrigger should now be facing the same direction.

# Step 4

Attach Upper cable Anchor by removing Eye Bolt and corresponding hardware, sliding the Upper Anchor Collar over tip of tube to predrilled holes and reattach as shown on sheet 5 of attached diagram

**ASSEMBLY NOTE:** Repeat steps 1-6 for the scond Rupprigger, taking into consideration the location of the labels on the Outrigger Tubes in order to ensure astethetic similarity.

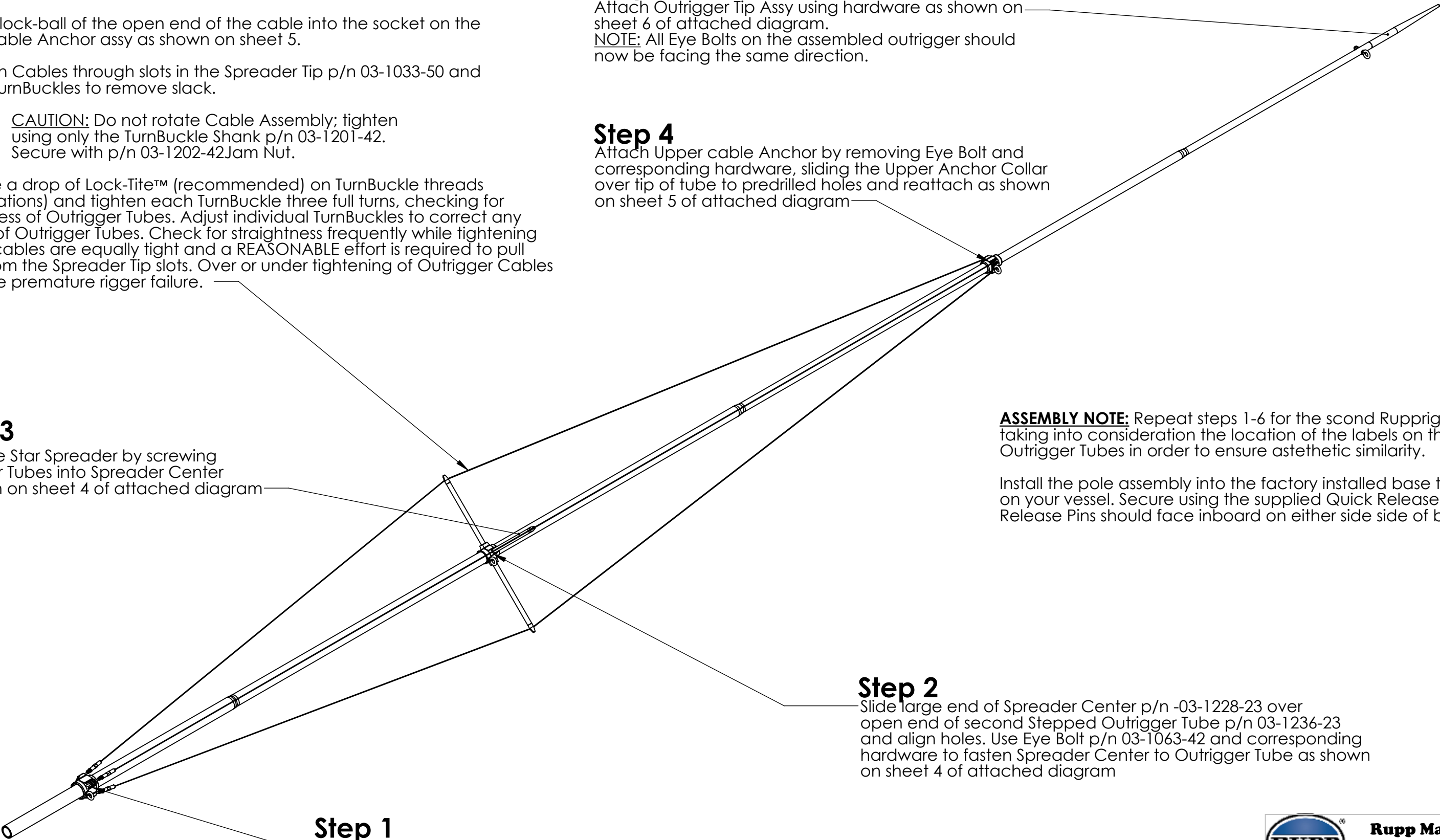
Install the pole assembly into the factory installed base tubes on your vessel. Secure using the supplied Quick Release Pins. Release Pins should face inboard on either side side of boat.

# Step 2

Slide large end of Spreader Center p/n -03-1228-23 over open end of second Stepped Outrigger Tube p/n 03-1236-23 and align holes. Use Eye Bolt p/n 03-1063-42 and corresponding hardware to fasten Spreader Center to Outrigger Tube as shown on sheet 4 of attached diagram

# Step 1

Thru bolt Base Anchor Collar p/n 03-1208-23 to reinforced lower outrigger tube p/n 03-1237-23 through the pre-drilled hole. Use Eye Bolt p/n 03-1064-42 and corresponding hardware as shown on sheet 3 of attached diagram.



RUPP002100



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**A1-1800-MIN INSTALL**  
**Parts Breakdown**



## Step 6

A - Insert TurnBuckle lock-ball located on the bottom of your outrigger cable assembly into the base anchor collar sockets as shown on Detail D.

B - Insert lock-ball of the open end of the cable into the socket on the Upper Cable Anchor assy as shown on Detail B.

C - Stretch Cables through slots in the Spreader Tip p/n 03-1033-50 and tighten TurnBuckles to remove slack.

**CAUTION:** Do not rotate Cable Assembly; tighten using only the TurnBuckle Shank p/n 03-1201-42. Secure with p/n 03-1202-42Jam Nut.

D - Place a drop of Lock-Tite™ (recommended) on TurnBuckle threads (four locations) and tighten each TurnBuckle three full turns, checking for straightness of Outrigger Tubes. Adjust individual TurnBuckles to correct any bowing of Outrigger Tubes. Check for straightness frequently while tightening untill all cables are equally tight and a REASONABLE effort is required to pull cable from the Spreader Tip slots. Over or under tightening of Outrigger Cables will cause premature rigger failure.

## Step 3

Assemble Star Spreader by screwing Spreader Tubes into Spreader Center as shown on Detail C of attached diagram

## Step 5

Attach Outrigger Tip Assy using hardware as shown on Detail A of attached diagram.

**NOTE:** All Eye Bolts on the assembled outrigger should now be facing the same direction.

## Step 4

Attach Upper cable Anchor by removing Eye Bolt and corresponding hardware, sliding the Upper Anchor Collar over tip of tube to predilled holes and reattach as shown on Detail B of attached diagram

**ASSEMBLY NOTE:** Repeat steps 1-6 for the sccond Rupprigger, taking into consideration the location of the labels on the Outrigger Tubes in order to ensure astethetic similarity.

Install the pole assembly into the factory installed base tubes on your vessel. Secure using the supplied Quick Release Pins. Release Pins should face inboard on either side side of boat.

## Step 2

Slide large end of Spreader Center p/n -03-1228-23 over open end of second Stepped Outrigger Tube p/n 03-1236-23 and align holes. Use Eye Bolt p/n 03-1063-42 and corresponding hardware to fasten Spreader Center to Outrigger Tube as shown on Detail C of attached diagram

## Step 1

Thru bolt Base Anchor Collar p/n 03-1208-23 to reinforced lower outrigger tube p/n 03-1237-23 through the pre-drilled hole. Use Eye Bolt p/n 03-1064-42 and corresponding hardware as shown on Detail D of attached diagram.

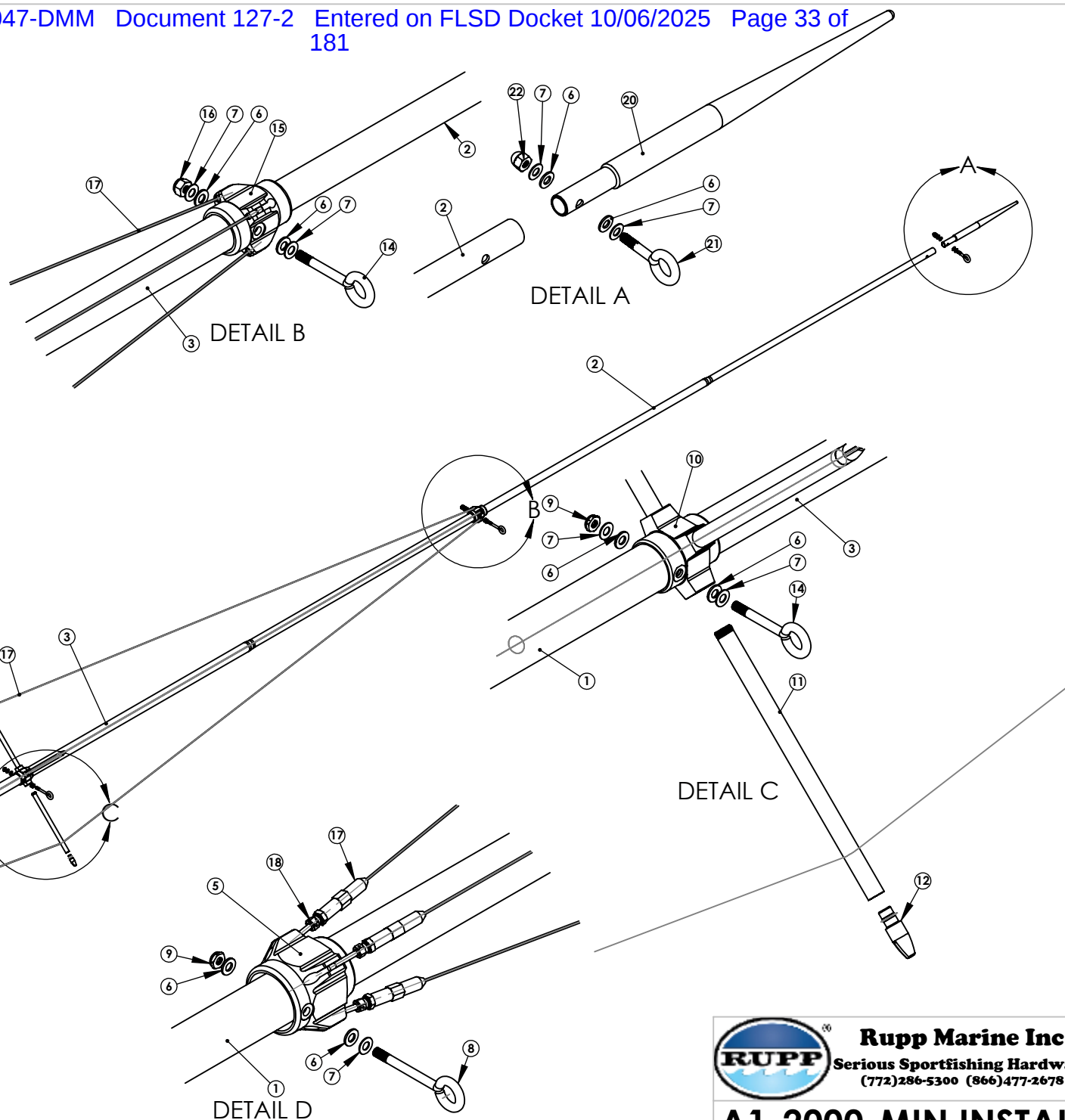
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**A1-2000-MIN INSTALL**

#	QTY	PART NO	DESCRIPTION
1	1	03-1233-23	20FT 3PC SECTION 1-3/8 X 1-1/2
2	1	03-1231-23	20 FT 3 PC SECTION 3/4 X 15/16
3	1	03-1232-23	20FT 3PC SECTION 1-1/16 X 1-1/4
4	1	AL-1375-1125	TUBE
5	1	03-1208-23	CABLE ANCHOR 1-3/4 LIFT OUT
6	8	03-1175-50	WASHER, NYLON
7	7	500-250-S1	1/2 X 1/4 WASHER
8	1	03-1064-42	EYE BOLT
9	2	420-NTE-01	1/4-20 NYLOCK
10	1	03-1228-23	SPREADER CENTER THREADED
11	4	03-1229-23	SPREADER TUBE THREADED
12	4	03-1033-AS	SPREADER TIP
14	2	03-1063-42	EYE BOLT
15	1	03-1199-23	TIP CABLE ANCHOR BALL TYPE
16	1	420-NEO-01	1/4-20 NYLOCK NUT
17	4	03-1211-40	CABLE ASM
18	4	203-1315-00	TURNBUCKLE BALL SHANK
19	4	03-1202-42	TURNBUCKLE JAM NUT 5/16-24 X 3/8
20	1	03-1023-23	TIP POINT
21	1	03-1061-42	EYE BOLT
22	1	420-CBO-00	CAP NUT



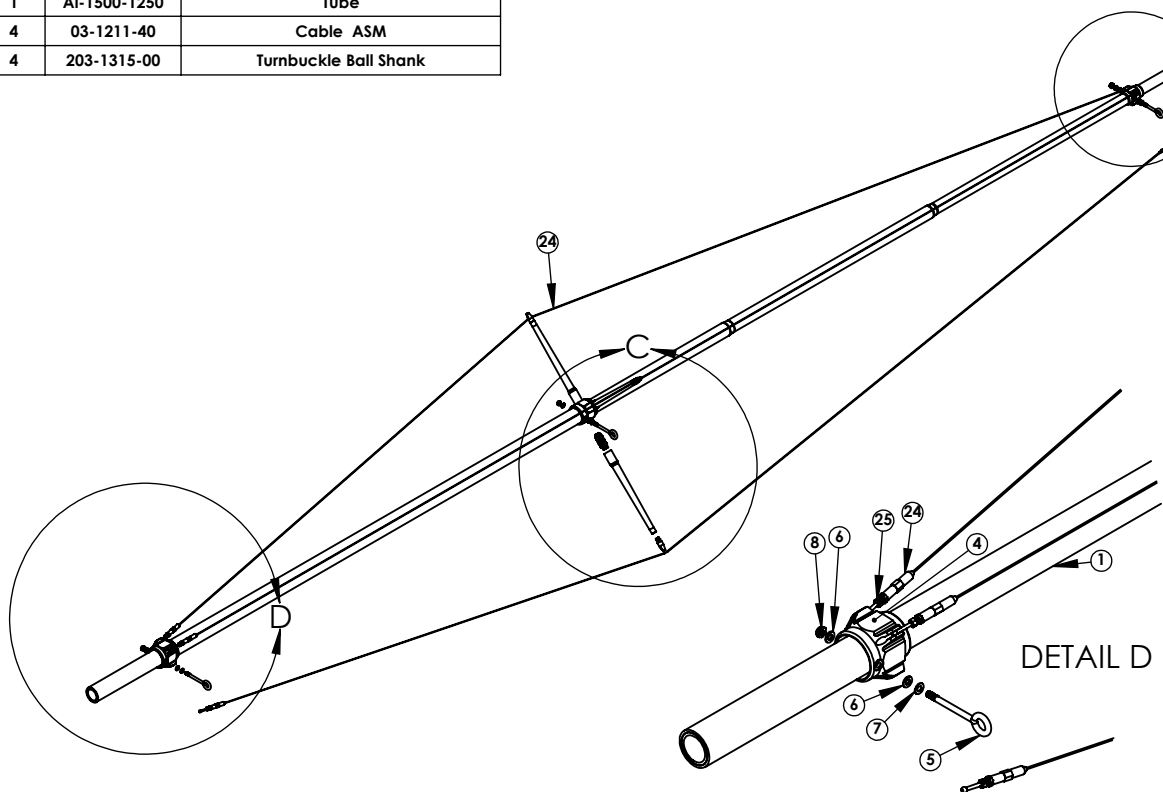
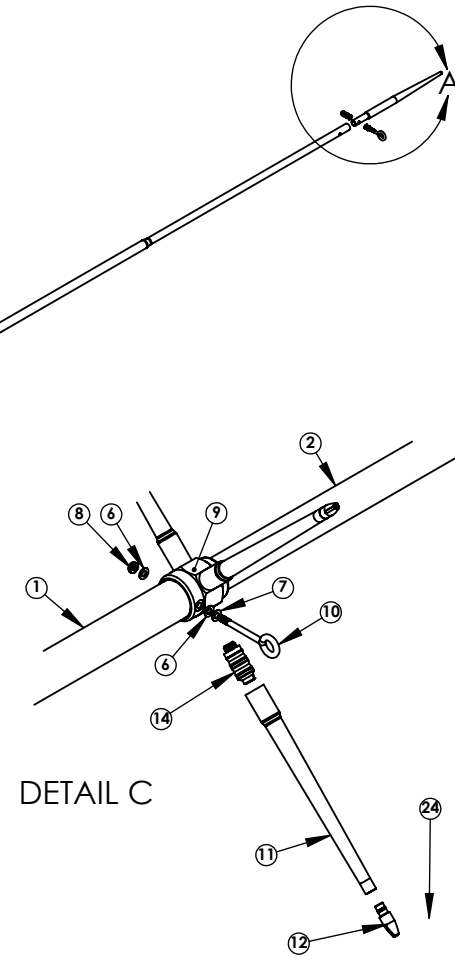
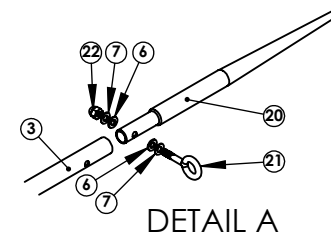
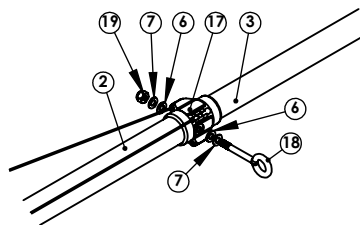
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**A1-2000-MIN INSTALL**  
**Parts Breakdown**



#	QTY	Part No	Description
1	1	03-1005-23	Tube
2	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
3	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
4	1	03-1209-23	CABLE ANCHOR 2" LIFT-OUT
5	1	03-1065-42	Eye Bolt
6	8	03-1175-50	Washer, Nylon
7	6	500-250-S1	1/2 x 1/4 Washer
8	2	420-NTE-01	1/4-20 Nylock
9	1	03-1060-23	SPREADER CENTER 1-3/4 x 1-1/2
10	1	03-1064-42	Eye Bolt
11	4	03-1248-23	9" Spreader Tube
12	4	03-1033-AS	SPREADER TIP
13	4	03-1310-70	Neoprene 'O' ring #010
14	4	03-1243-AS	Spreader "O" Ring Stud
17	1	03-1190-23	Tip Cable Anchor Ball Type
18	1	03-1063-42	Eye Bolt
19	1	420-NEO-01	1/4-20 Nylock Nut
20	1	03-1023-23	Tip Point
21	1	03-1061-42	Eye Bolt
22	1	420-CBO-00	Cap Nut
23	1	AI-1500-1250	Tube
24	4	03-1211-40	Cable ASM
25	4	203-1315-00	Turnbuckle Ball Shank

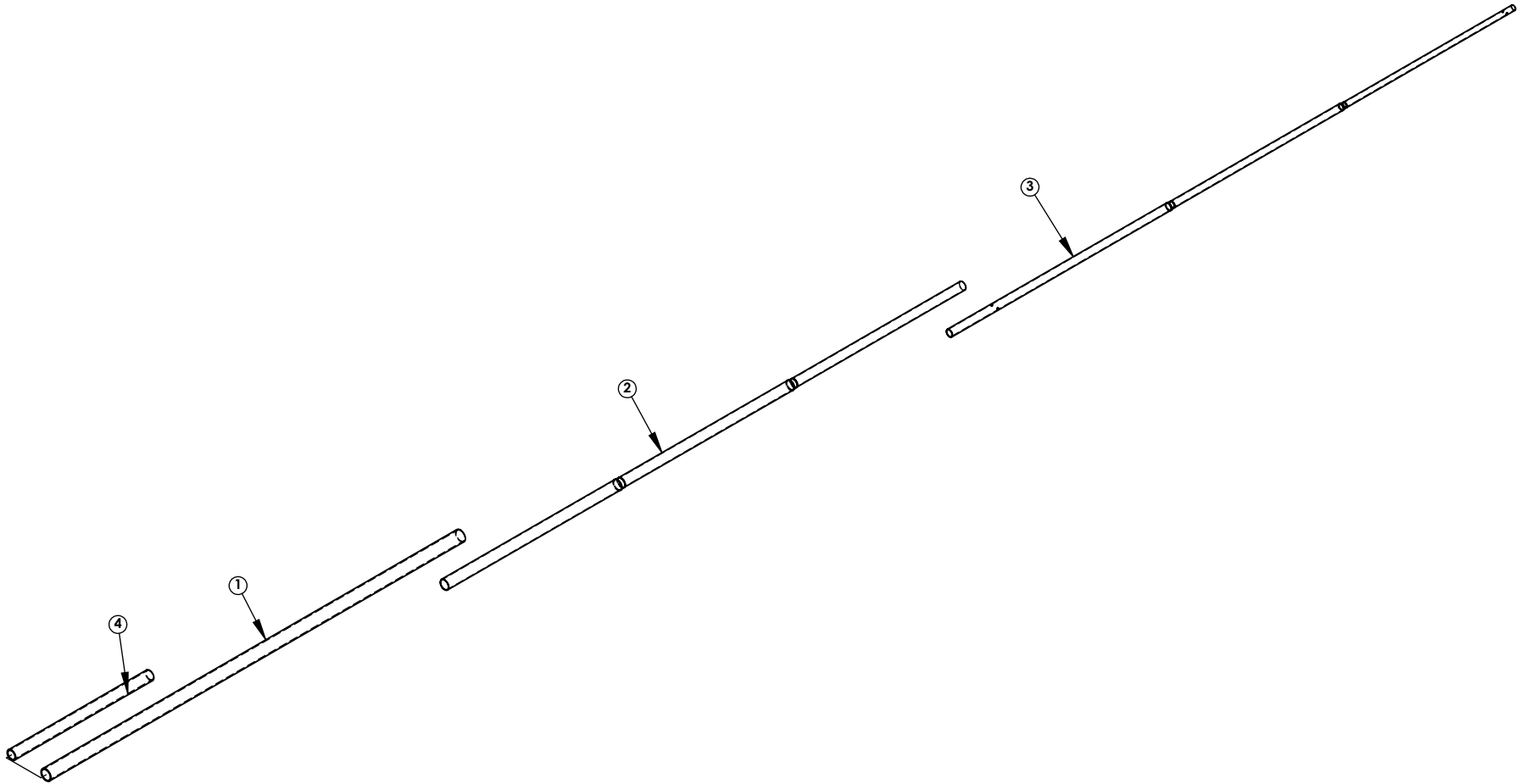


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**A1-2100-TLO**  
**Parts Breakdown**

#	QTY	Part No	Description
1	1	03-1005-23	Tube
2	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
3	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
4	1	AI-1500-1250	Tube

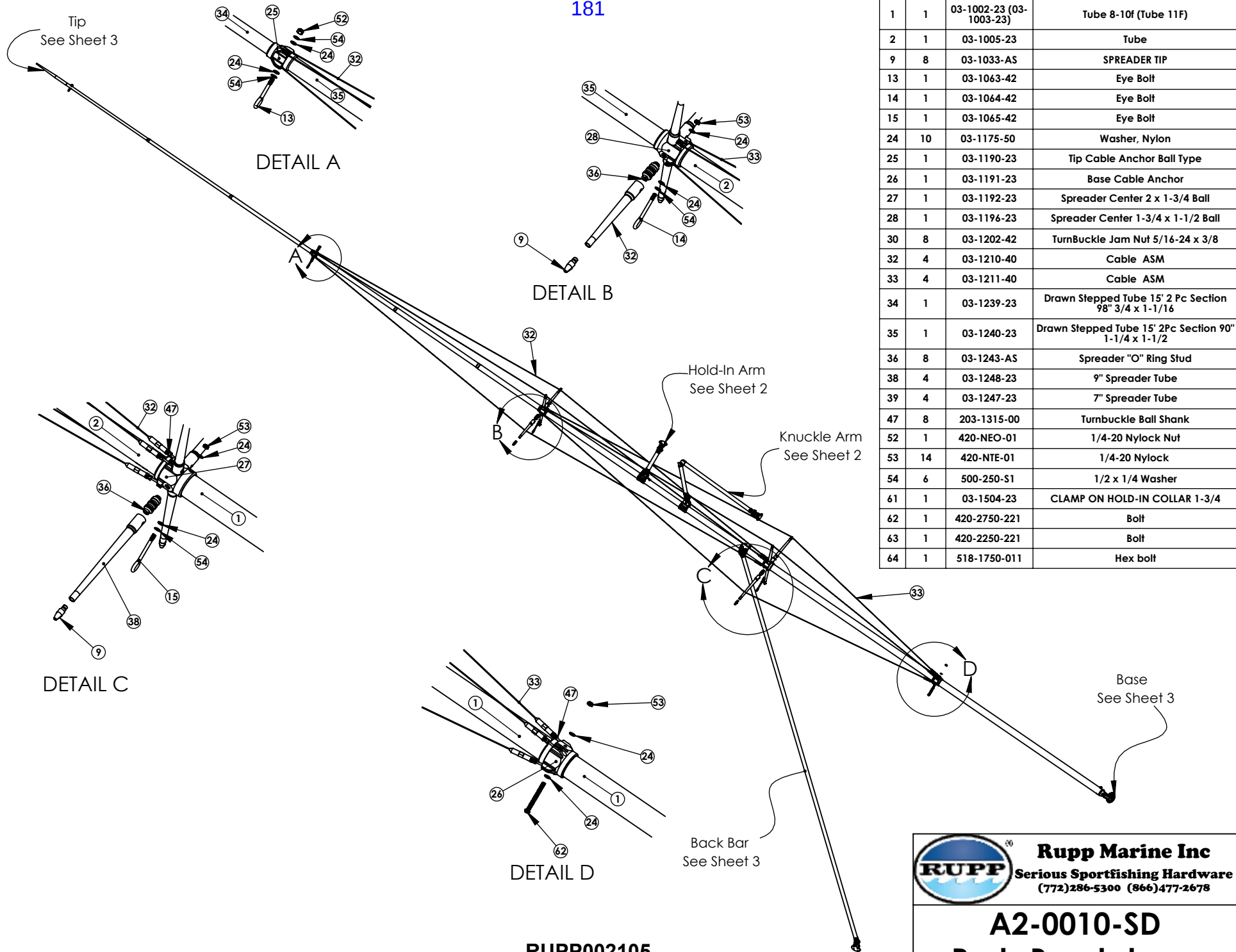


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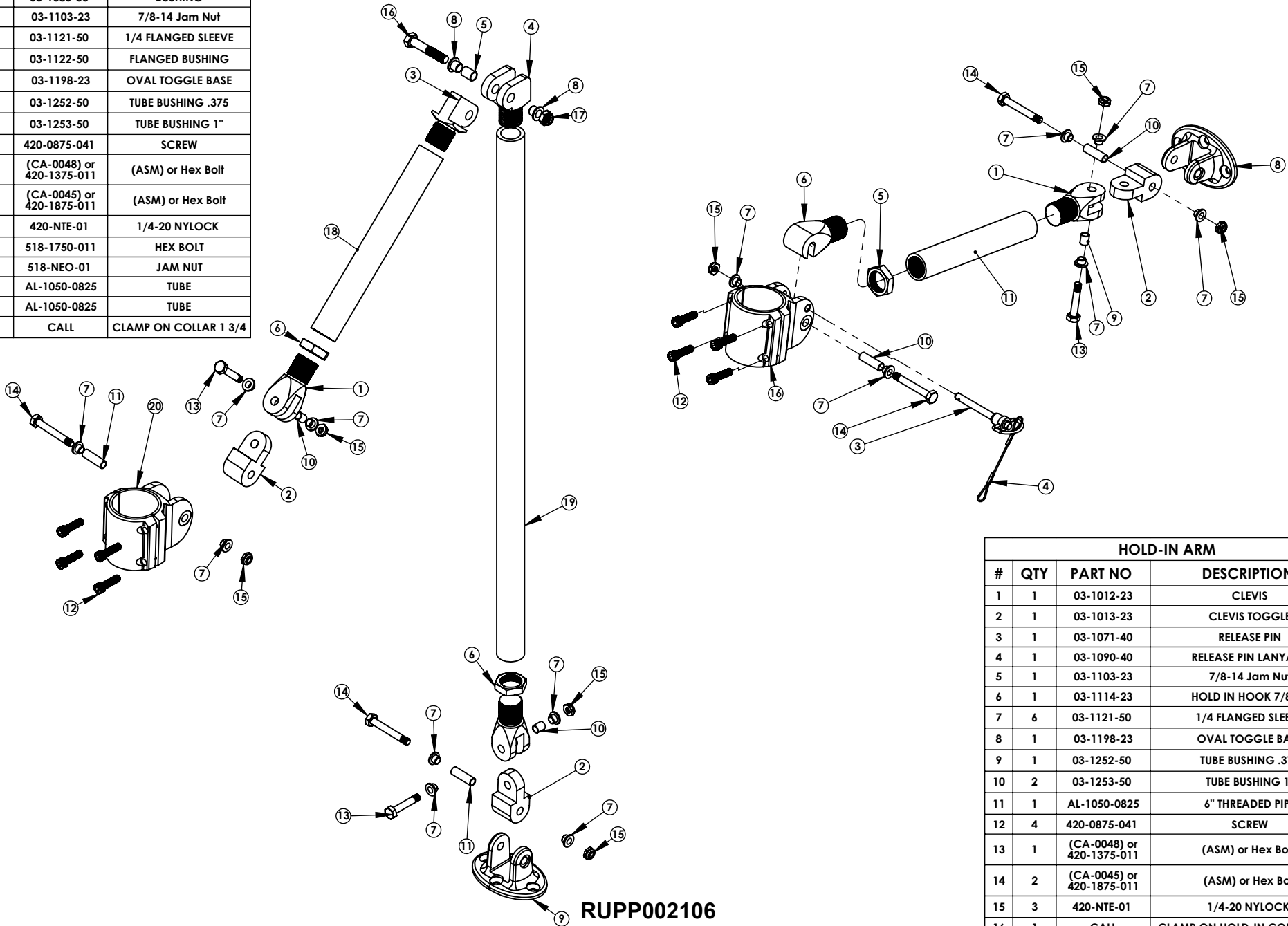


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**A1-2100-TLO**  
**Parts Breakdown**



KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

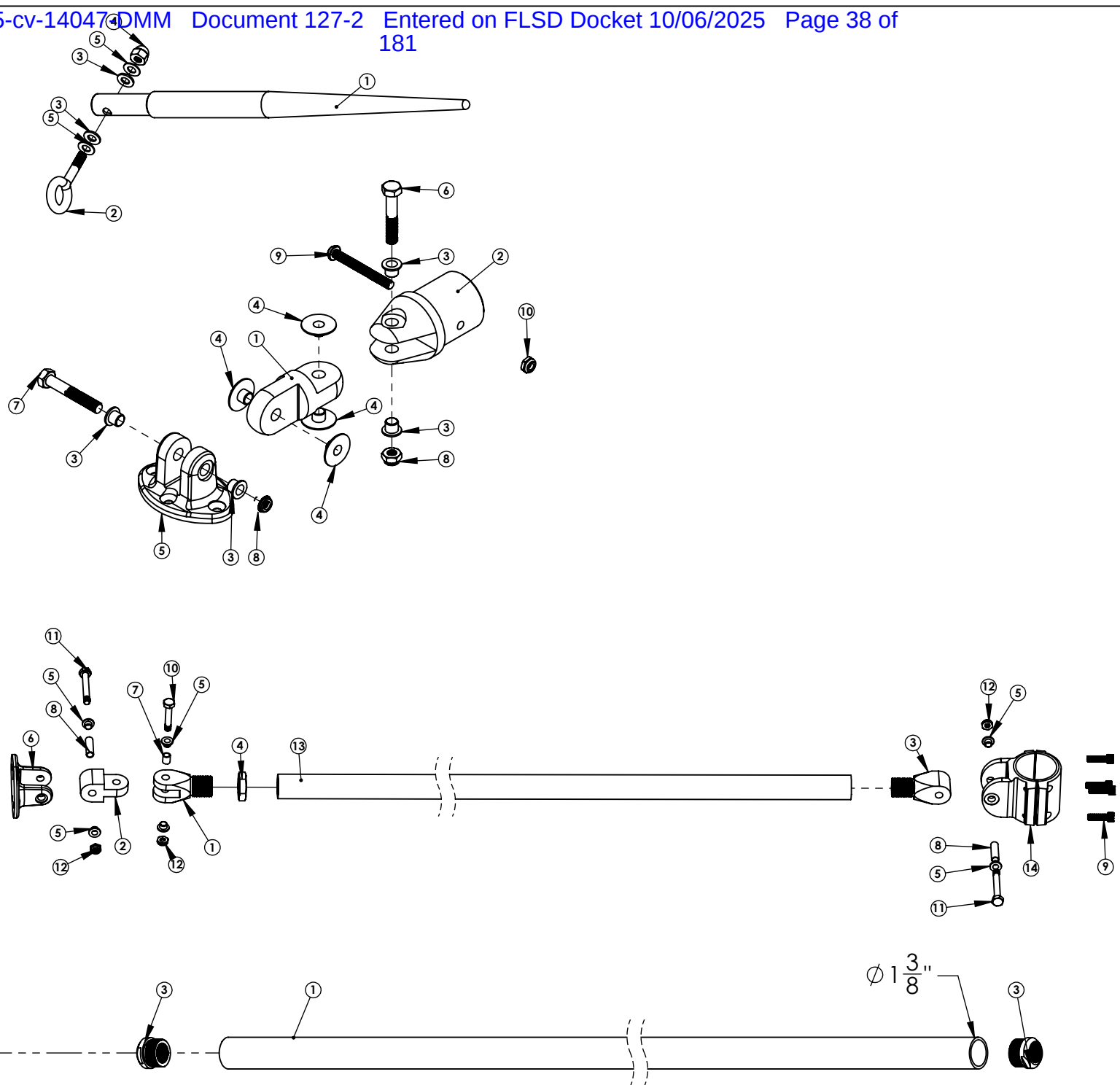
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TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

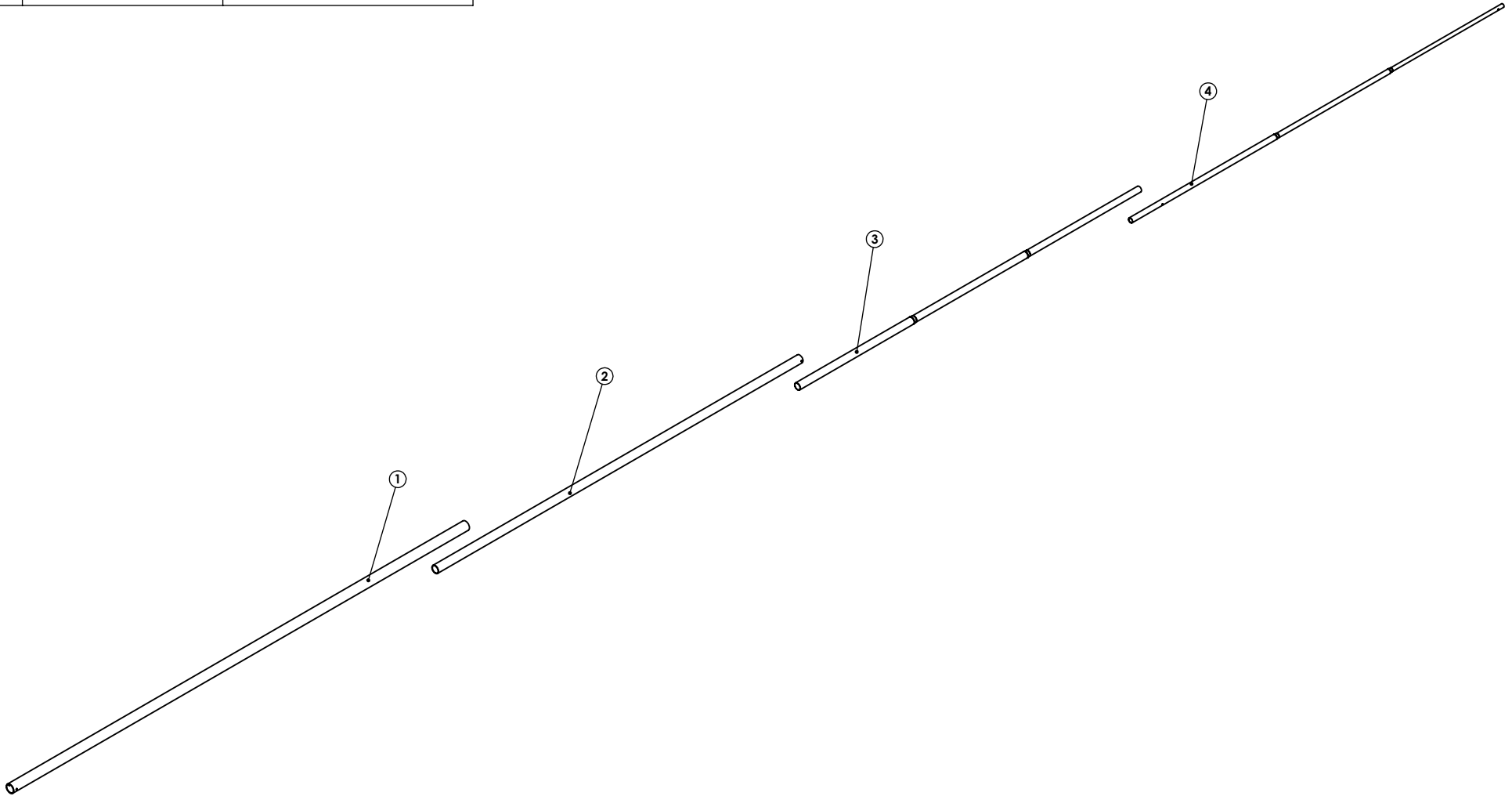
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002107

#	QTY	Part No	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16



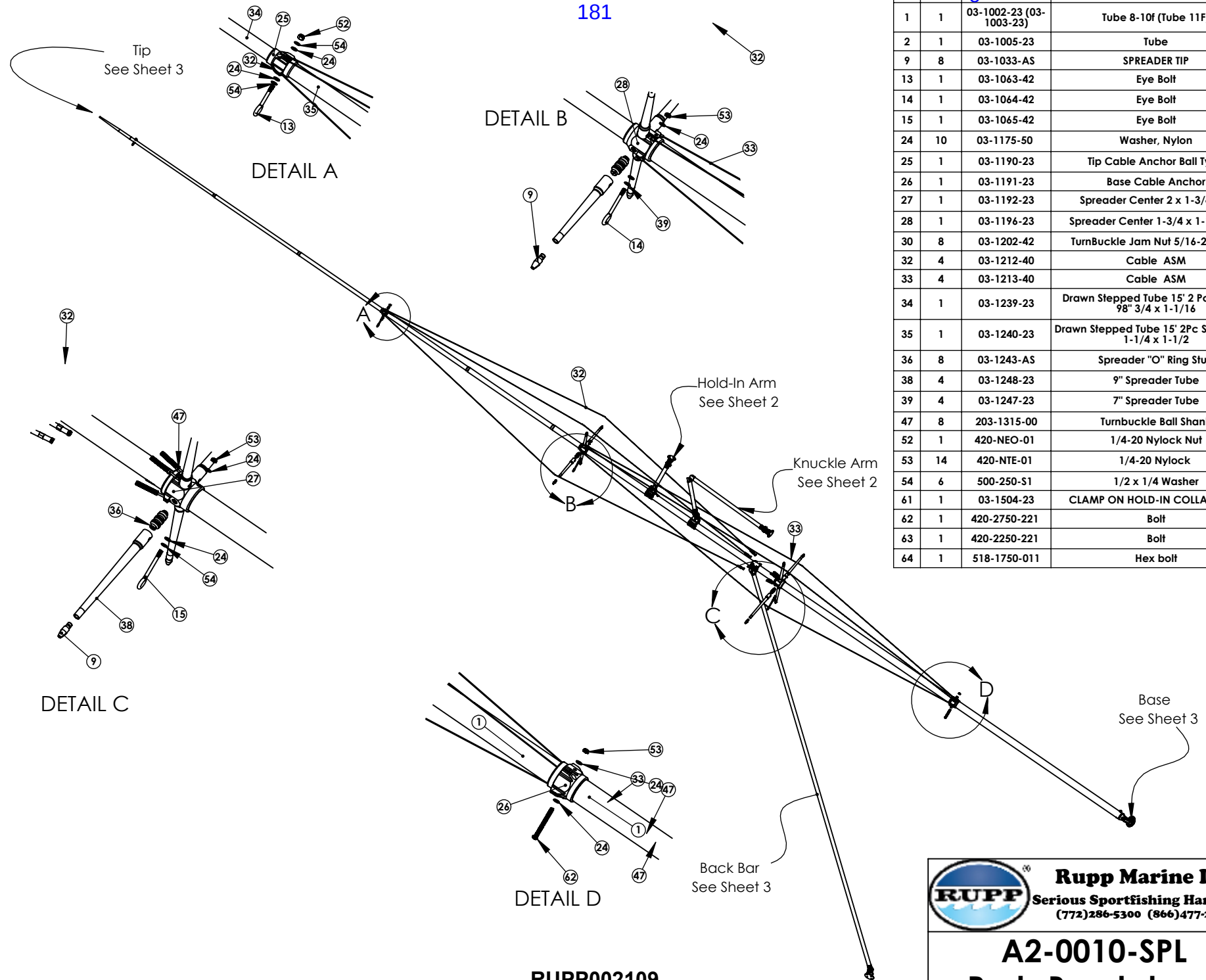
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**A2-0010-SD**  
**Parts Breakdown**

#	QTY	Part No.	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1005-23	Tube
9	8	03-1033-AS	SPREADER TIP
13	1	03-1063-42	Eye Bolt
14	1	03-1064-42	Eye Bolt
15	1	03-1065-42	Eye Bolt
24	10	03-1175-50	Washer, Nylon
25	1	03-1190-23	Tip Cable Anchor Ball Type
26	1	03-1191-23	Base Cable Anchor
27	1	03-1192-23	Spreader Center 2 x 1-3/4 Ball
28	1	03-1196-23	Spreader Center 1-3/4 x 1-1/2 Ball
30	8	03-1202-42	TurnBuckle Jam Nut 5/16-24 x 3/8
32	4	03-1212-40	Cable ASM
33	4	03-1213-40	Cable ASM
34	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
35	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
36	8	03-1243-AS	Spreader "O" Ring Stud
38	4	03-1248-23	9" Spreader Tube
39	4	03-1247-23	7" Spreader Tube
47	8	203-1315-00	Turnbuckle Ball Shank
52	1	420-NEO-01	1/4-20 Nylock Nut
53	14	420-NTE-01	1/4-20 Nylock
54	6	500-250-S1	1/2 x 1/4 Washer
61	1	03-1504-23	CLAMP ON HOLD-IN COLLAR 1-3/4
62	1	420-2750-221	Bolt
63	1	420-2250-221	Bolt
64	1	518-1750-011	Hex bolt

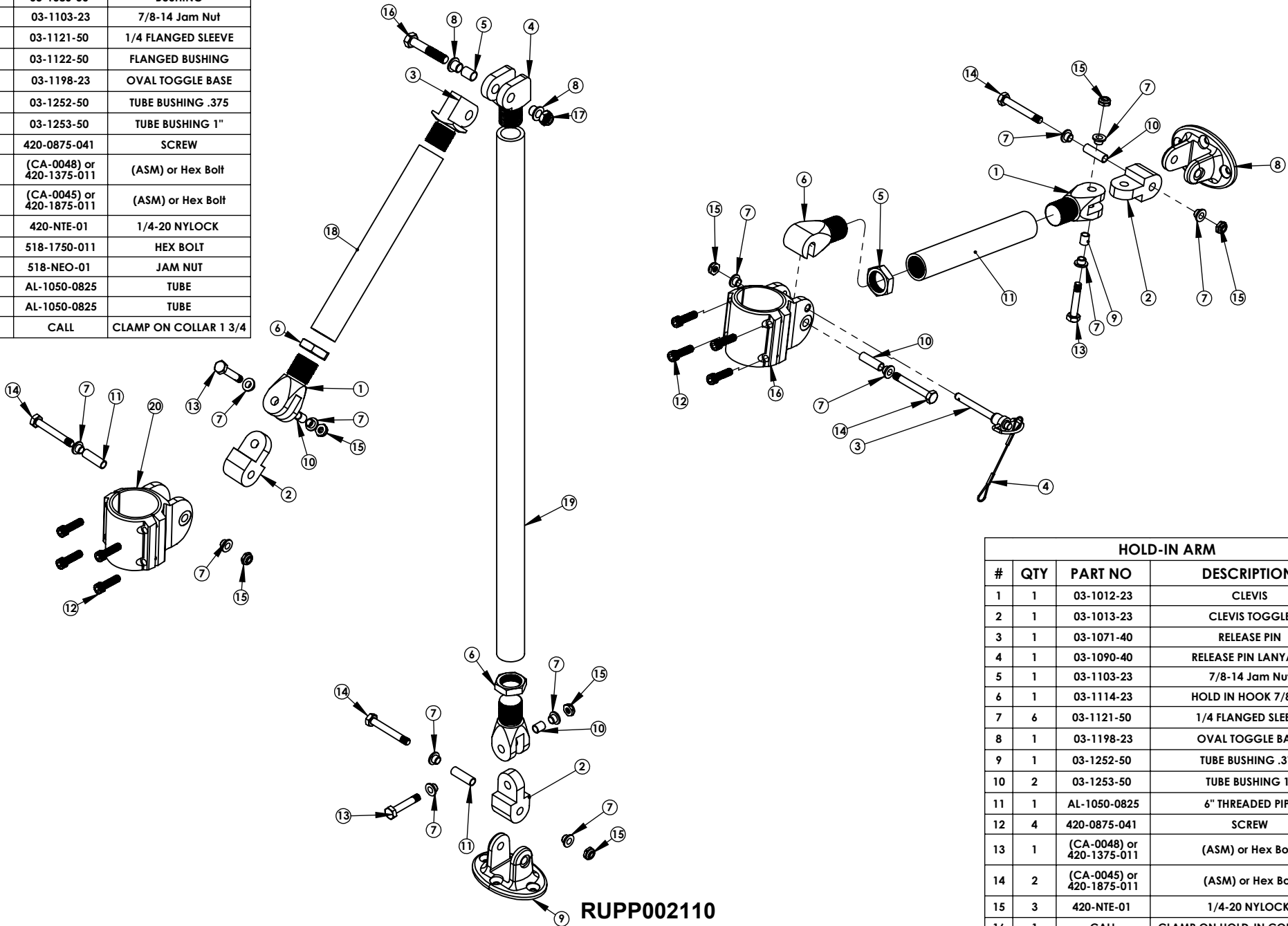




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**A2-0010-SPL**  
**Parts Breakdown**

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

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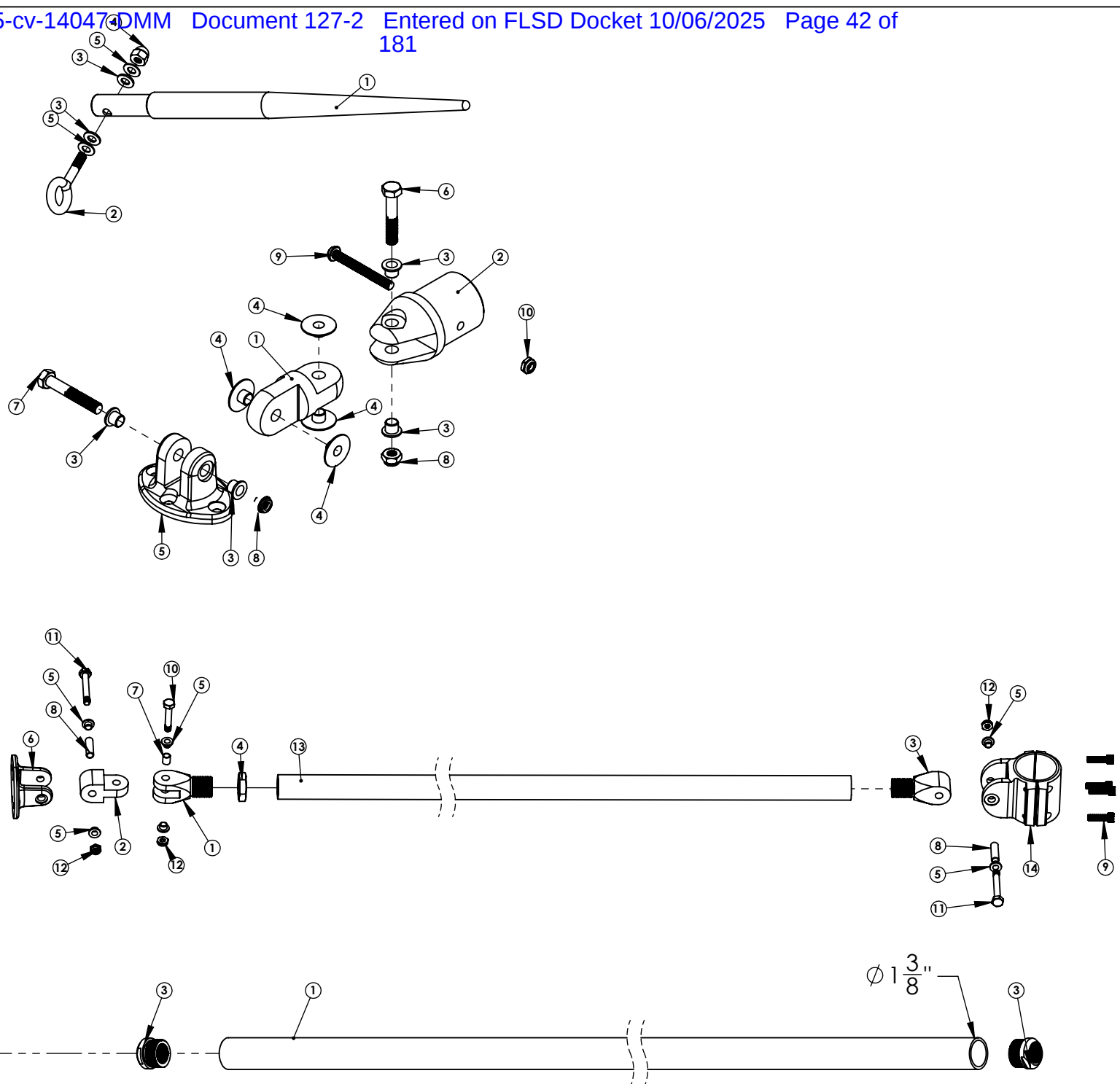


TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

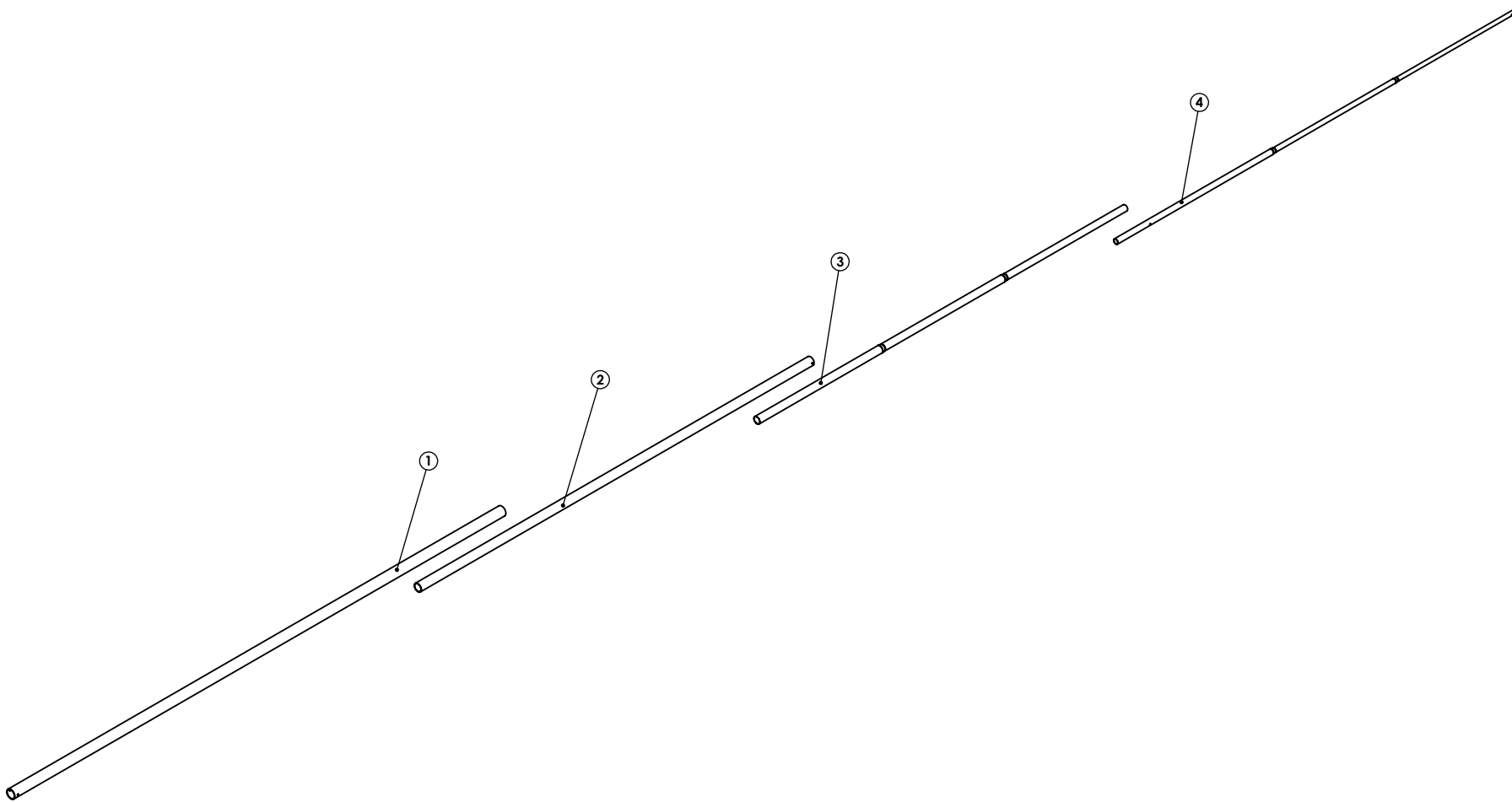
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



**RUPP002111**

#	QTY	Part No	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16



RUPP002112



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# A2-0010-SPL Parts Breakdown

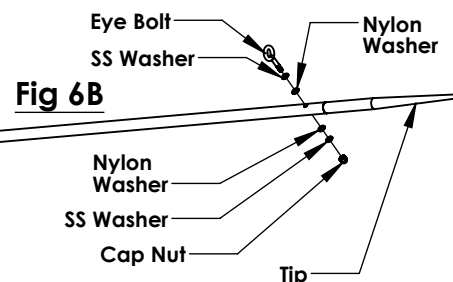
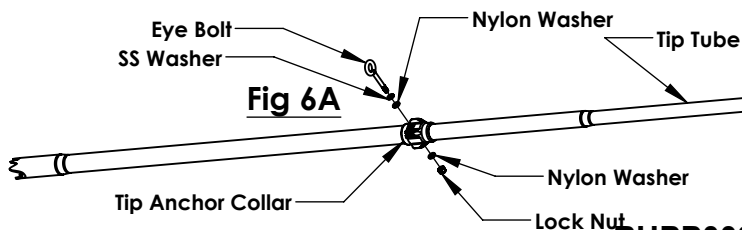
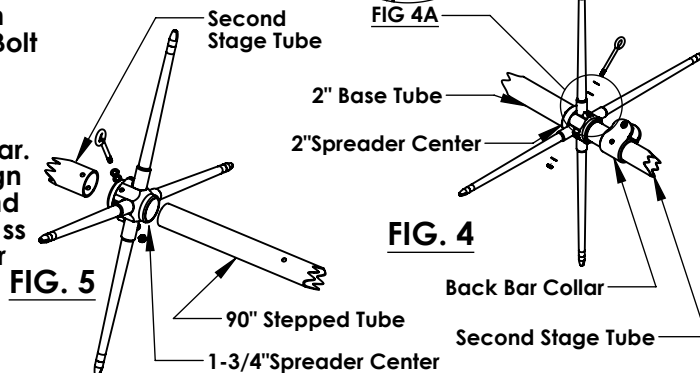
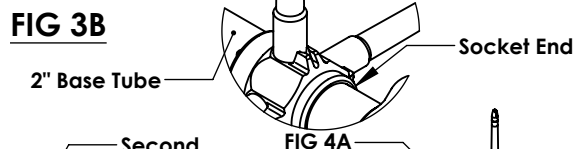
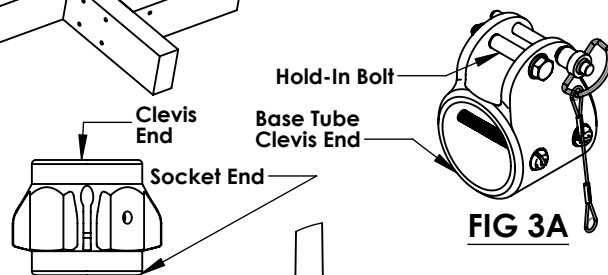
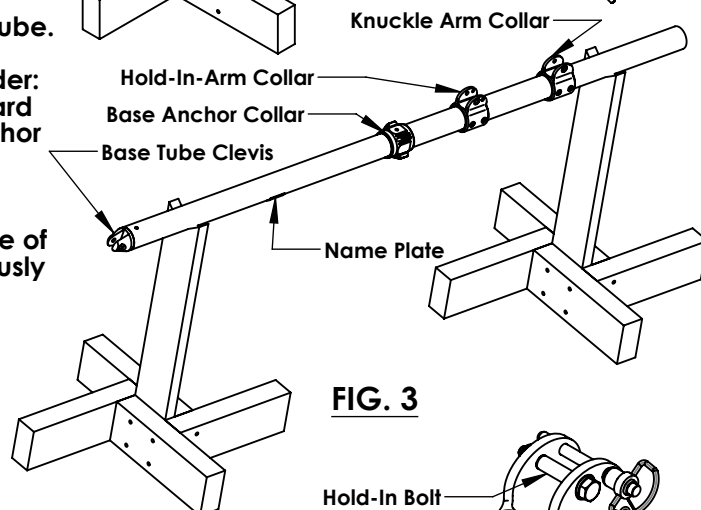
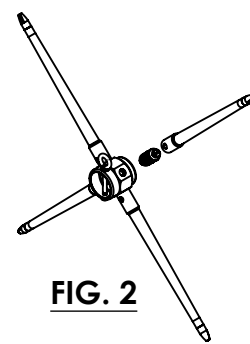
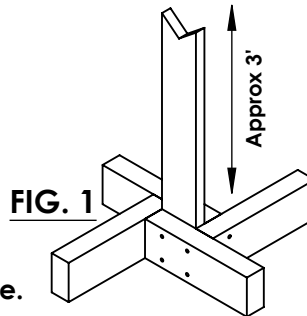
**RUPP MARINE INC**  
PORT SALERNO, FL.

# ASSEMBLY INSTRUCTION FOR 2 SPREADER

## Rupprigger

To assist in assembly construct 2 or 3 stands from 2x4's as shown in Fig 1.

- 1 Preassemble spreader assembly with spreader tubes. See Fig 2. (Lubricate "O"Rings for easier installation).
- 2 Layout 2" dia. base tube on assembly stands with serial no. plate down. See Fig 3.
- 3 Remove screw, SS washer, nylon washers and nut from base anchor collar. keep handy for reassembly on base tube.
- 4 Over the open end of base tube slide on these parts in order: Base Anchor Collar, Hold-In-Arm Collar (Hold-In Bolt toward base tube clevis). See Fig 3A. The socket end of base anchor collar should be pointing away from the base tube clevis. See Fig. 3B
- 5 Align base anchor collar with pre-drilled holes near middle of the base tube. Secure with screw, washers and nut previously removed.
- 6 Remove eye bolt, nut and washers from preassembled 2" spreader assembly. Keep handy for reassembly.
- 7 Slide large end of collar over open end of base tube and align holes with predrilled holes in base tube. See Fig. 4
- 8 Insert double drilled end of 1-3/4" second stage tube through the open end of the spreader collar and 2" base tube. Align the first hole in this tube with the hole through the spreader collar and 2" base tube. Bolt together using eye bolt, SS washer, nylon washers and lock nut. See Fig 6A for stacking order. Eye bolt up name plate down.
- 9 Over the open end of second stage tube, slide on back bar collar with ears up . See Fig 4.
- 10 Remove eye bolt, nut and washers from 1-3/4" x 1-1/2" spreader collar. Keep these handy. Slide large end of the collar over open end of second stage tube and align holes. Insert 1-1/2" x 90" stepped tube with drilled hole 6" from end through collar and into top of second stage tube. Bolt the 3 units together use stacking order as in Fig 6A. Eye bolt up.
- 11 Remove eye bolt, washers and nut from tip anchor collar. Slide collar over open end of 90" stepped tube and align holes. Insert 98" stepped tube in to 90" stepped tube and tip anchor collar and align holes. Secure with eye bolt, ss washer, nylon washers and lock nut . For stacking order see Fig 6A.
- 12 Remove eye bolt washers and nut from tip tube. Insert rigger tip into open end of 98" stepped tube and secure with eye bolt, ss washers, nylon washets and cap nut. See Fig 6B for stacking order. All eyes of eye bolts must be on the same side of Rupprigger.



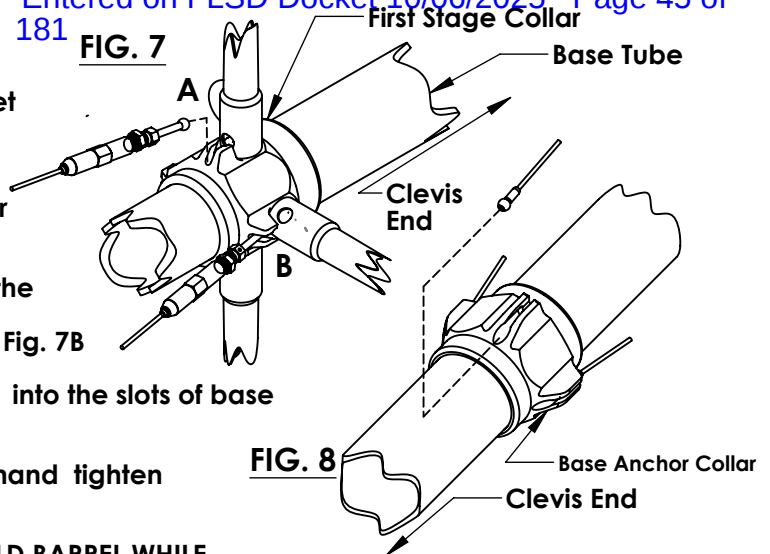
RUPP002113

# **RUPP MARINE INC**

PORT SALERNO, FL.

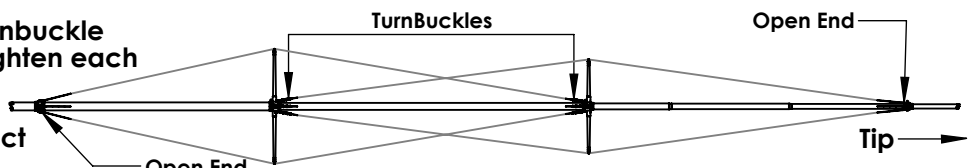
## **13 Installation and adjustment of Rupp Lock-Ball Socket ball system.**

- A- Align holes at base of spreader tubes with slots of sockets on base end of second stage spreader collar. See Fig. 7A.
- B- Insert Lock-Ball of turnbuckles into sockets using the hole in spreader tubes. Rotate spreader tube to prevent Lock-Ball from withdrawing from slot. See Fig. 7B
- C- Insert Lock-Ball of open ends of four base cables into the slots of base anchor collar sockets. See Fig. 8.
- D- Stretch cables through slots in spreader tips and hand tighten turnbuckles to remove slack. See Fig. 9.

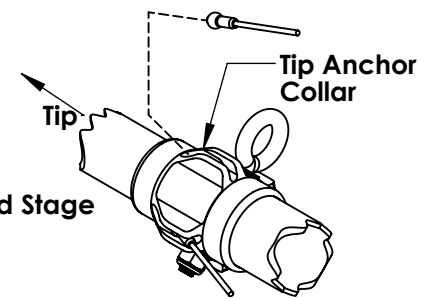
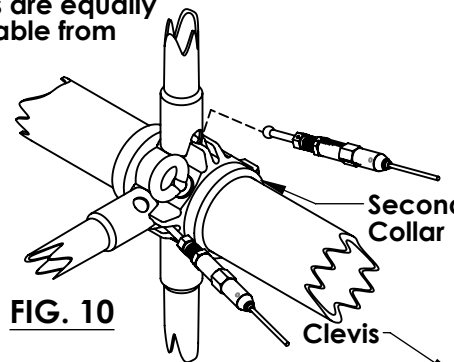


**CAUTION: DO NOT ROTATE BARREL OF TURNBUCKLE HOLD BARREL WHILE TIGHTENING LOCK-BALL END.**

- E- Place a drop of Loc-Tite on turnbuckle threads (four locations) and tighten each turnbuckle three full turns and check for straightness. Adjust individual turnbuckles to correct bowing of tubes and continue tightening all around. Check for straightness frequently while tightening until all cables are equally tight and great effort is required to pull cable from slots in spreader tips.

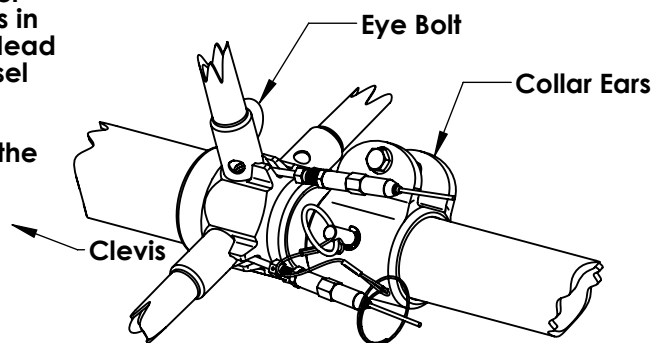


- F- Align holes at base of spreader tubes with slots of sockets on second stage spreader collar. See Fig 10. Repeat "B" above. Insert Lock-Ball of open end into sockets of tip anchor collar. See Fig 11. Repeat steps D" & "E".  
NOTE: Tip cables should not be quite as tight as the first set.



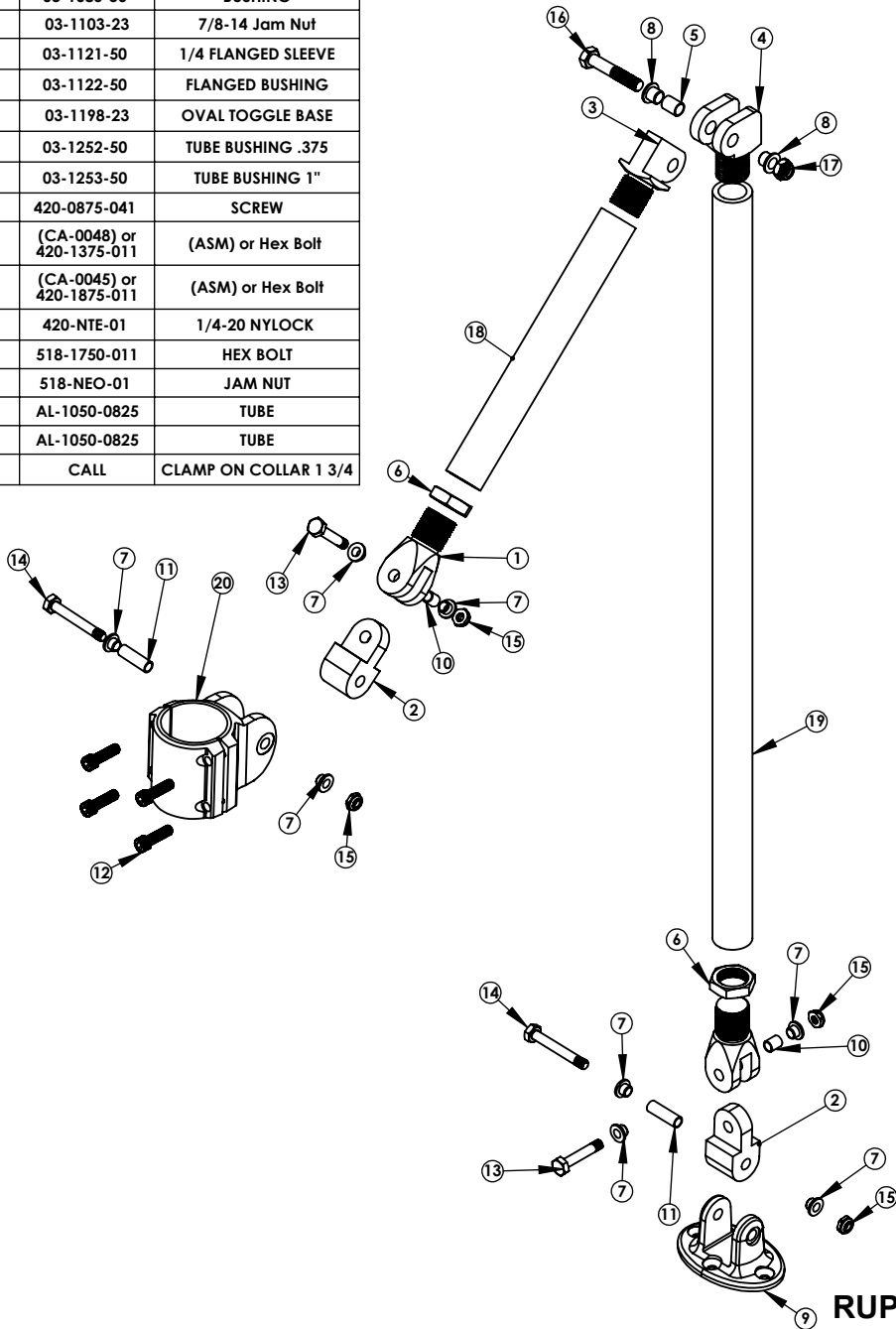
- 14 Position back bar slide collar as shown in Fig. 12 with collar ears on the same side of tube as the eye bolt eye on the first stage spreader collar. Insert 5/16" quick release pin through holes in collar and predrilled hole in second stage tube. Head of release pin should be to the cockpit of the vessel for easy access.

- 15 Clip 4" cable attached to the release pin around the turnbuckle away from collar ears.

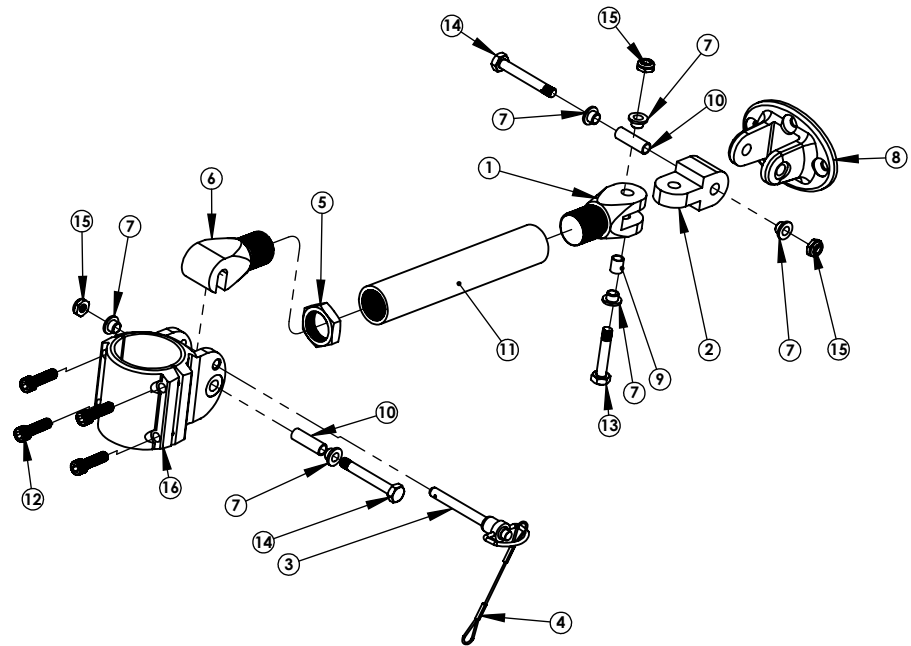




KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



RUPP002116



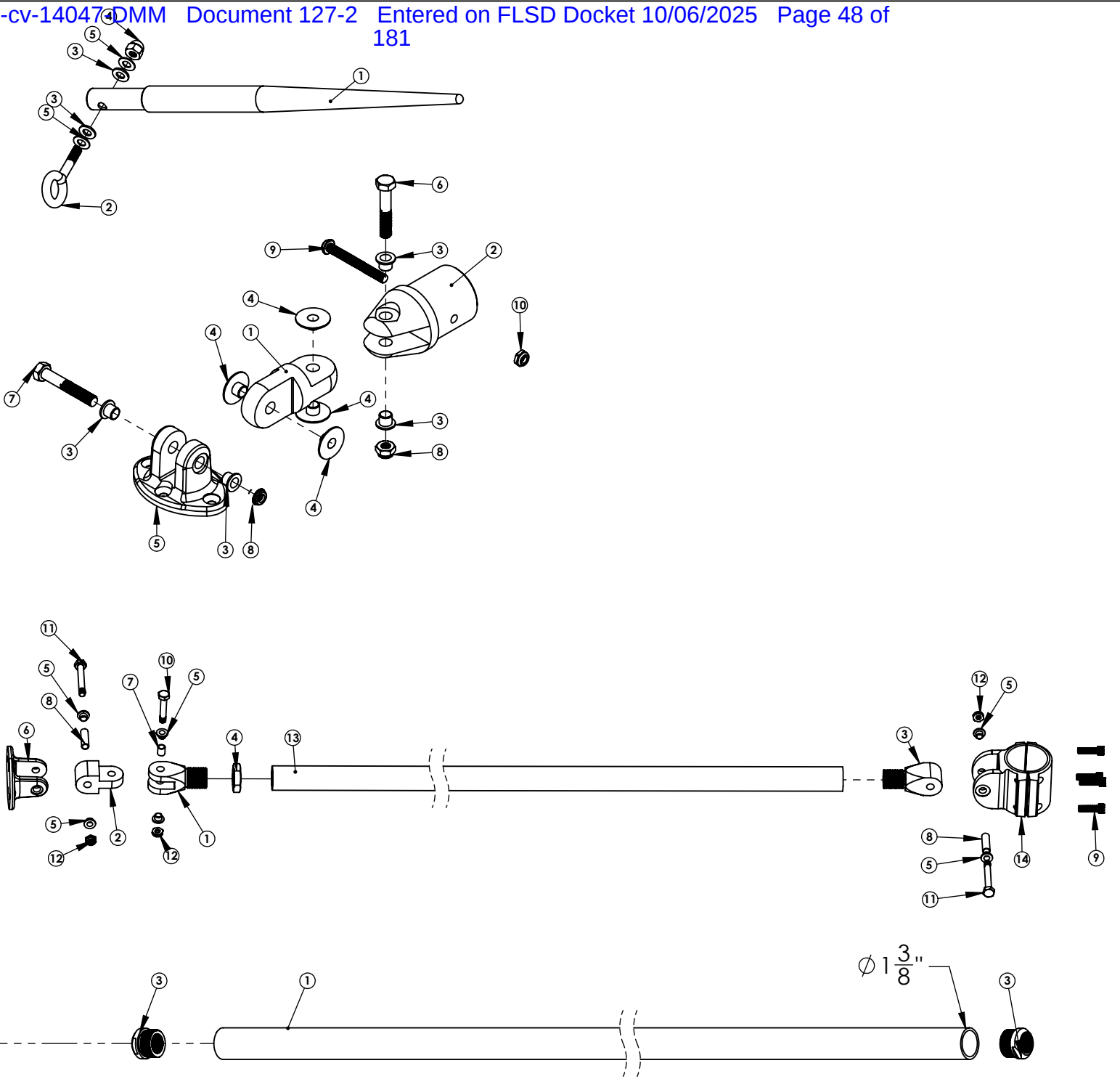
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer

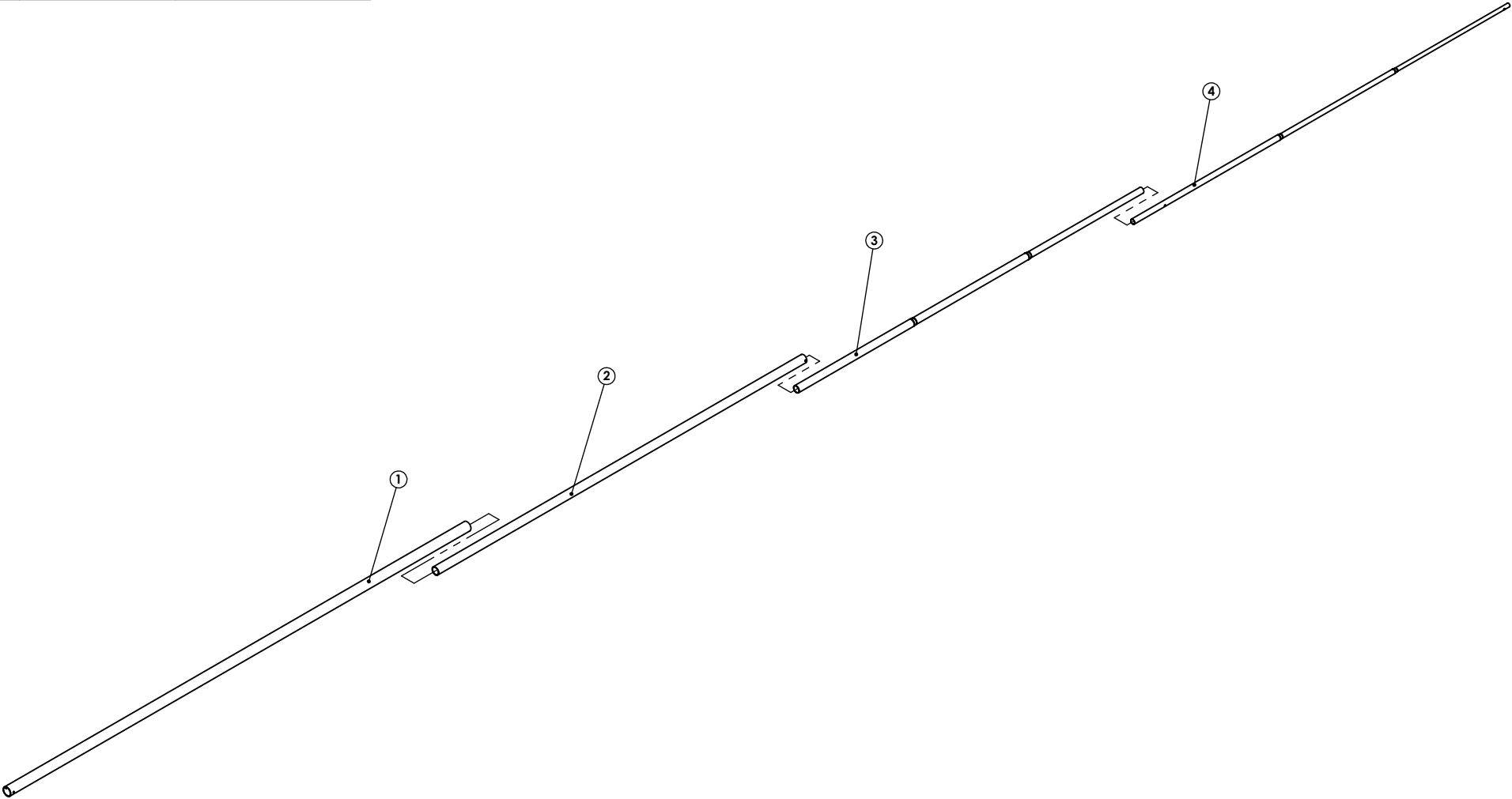


RUPP002117

Ø 1 3/8"



#	QTY	Part No	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16



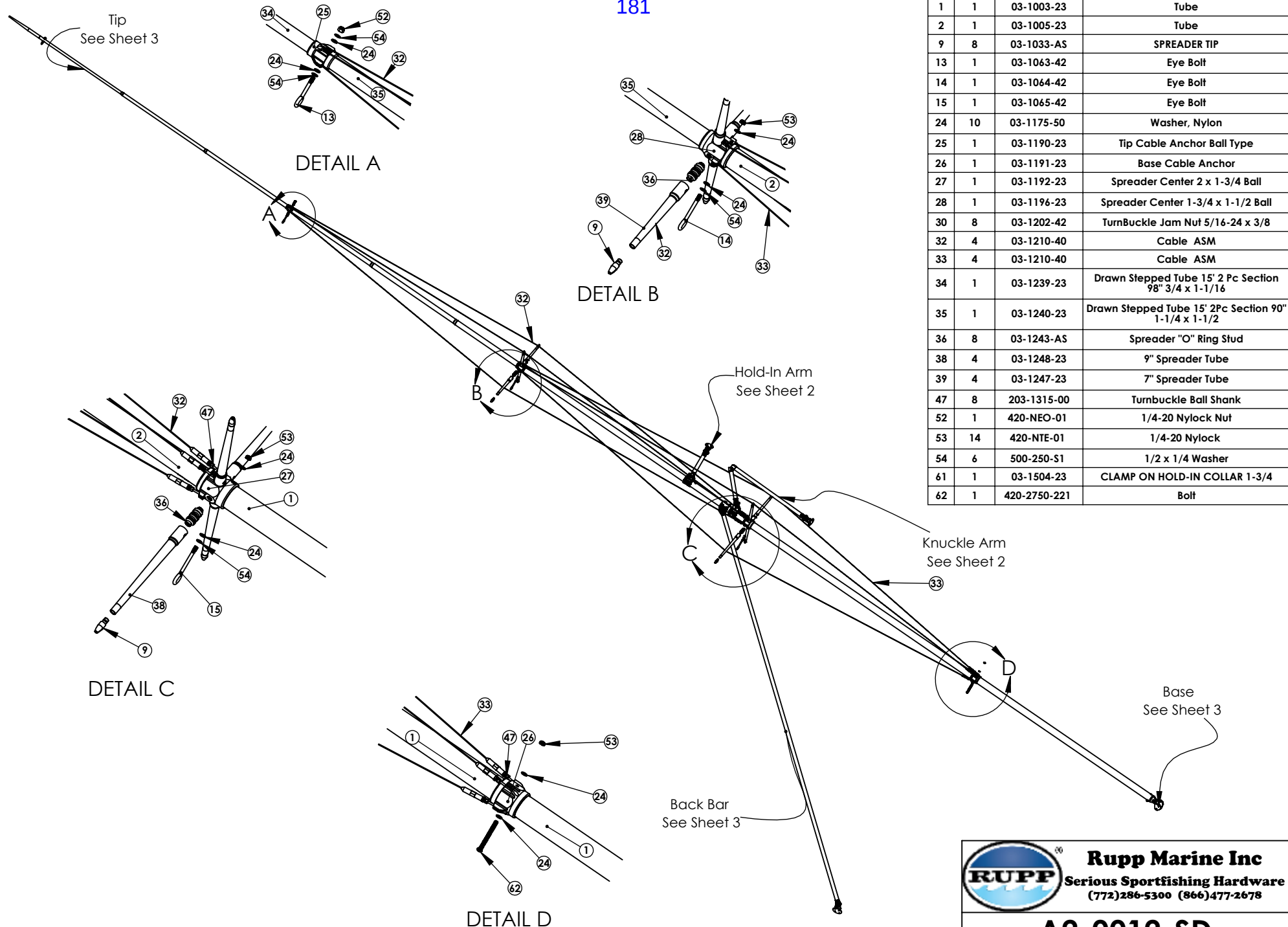
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**A2-0010-STD**  
**Parts Breakdown**





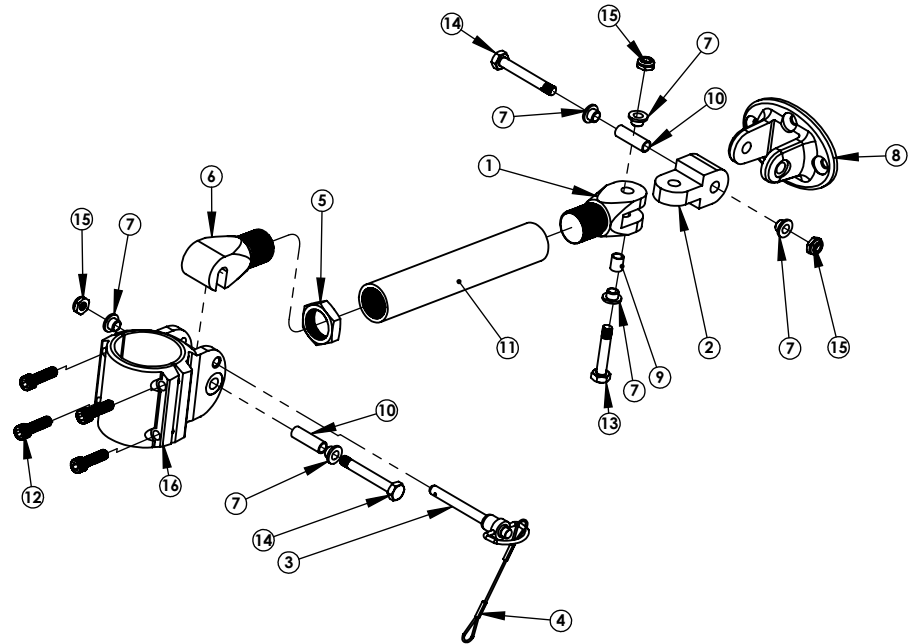
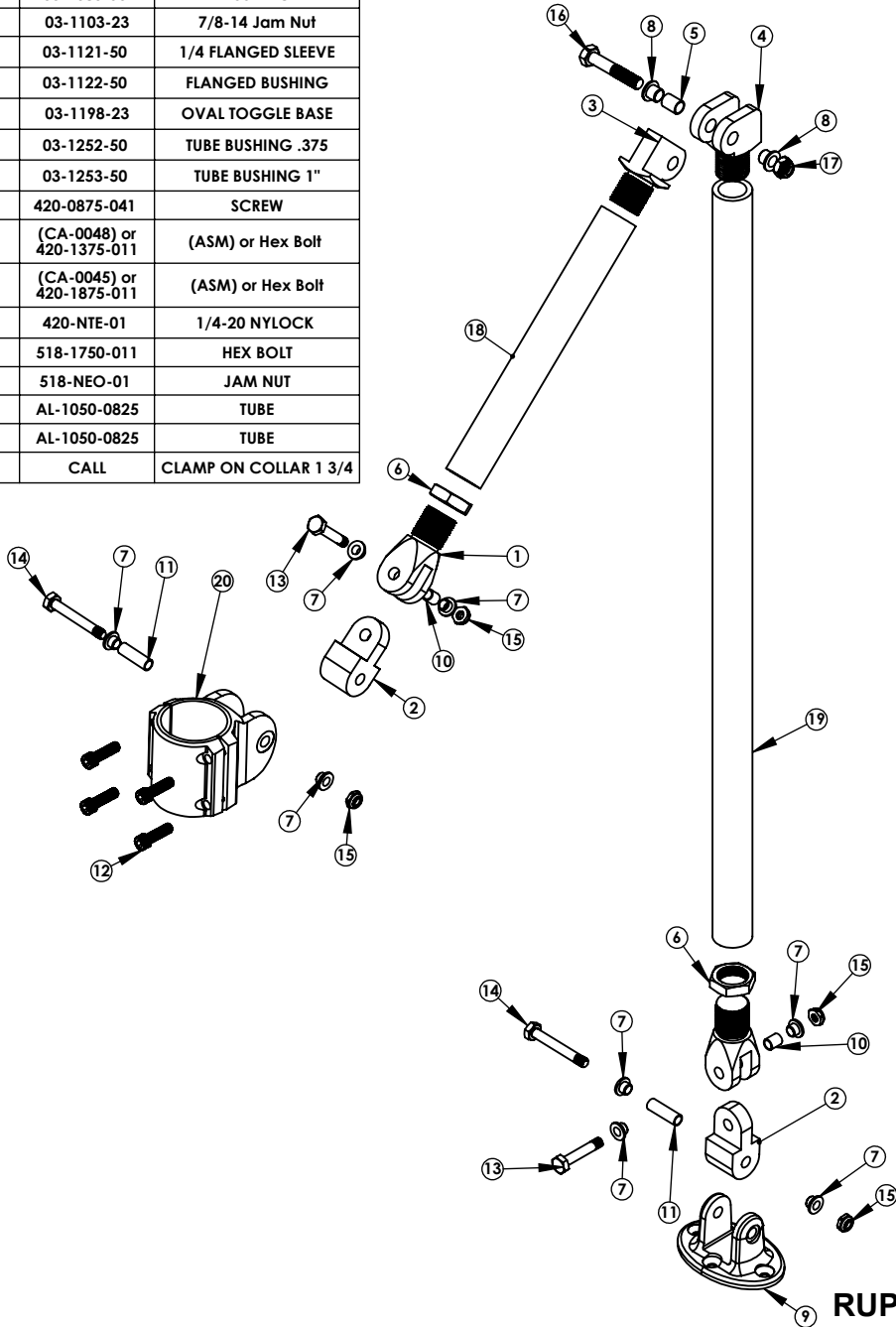
RUPP002119



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**A2-0012-SD**  
**Parts Breakdown**

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



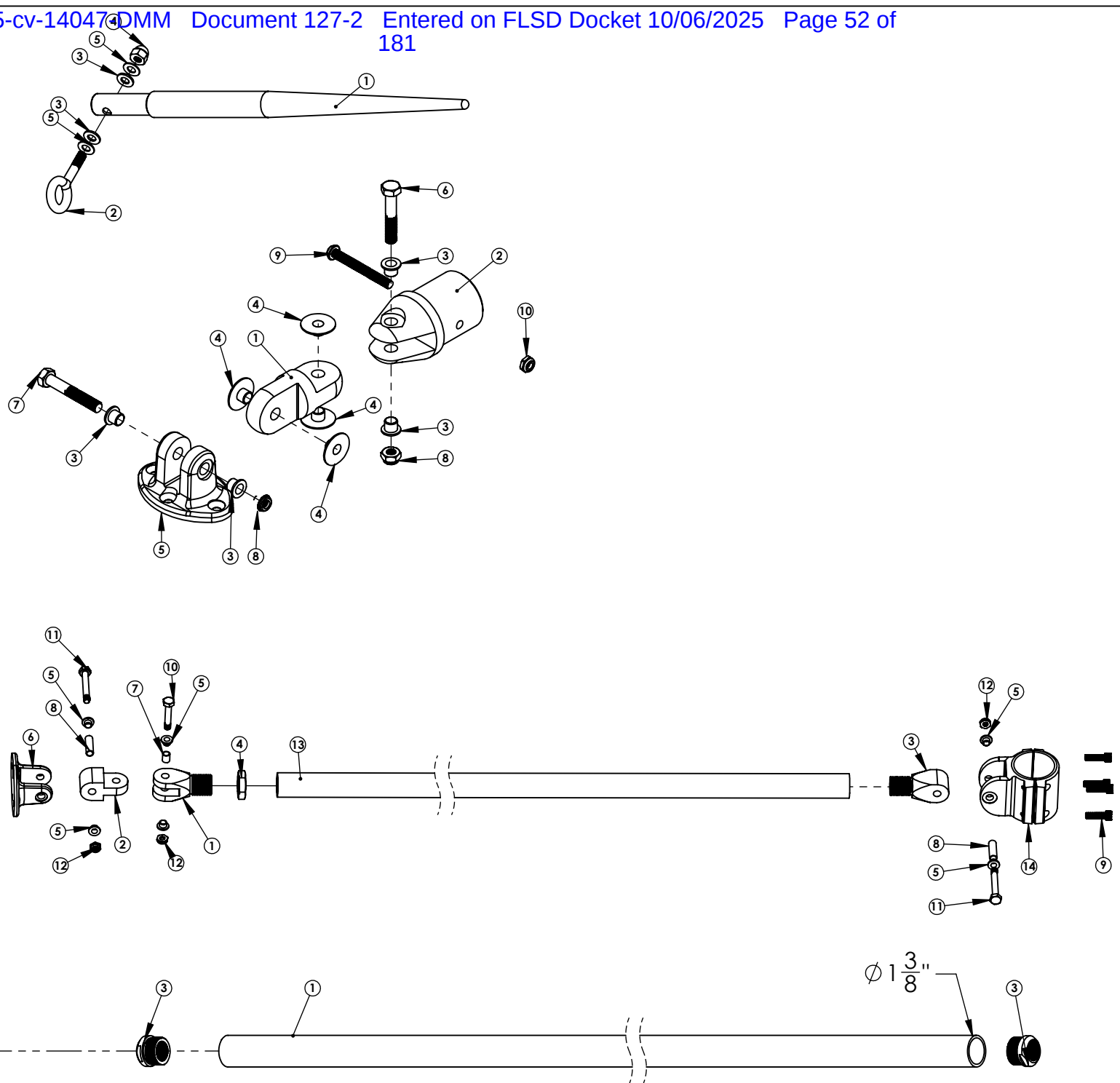
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

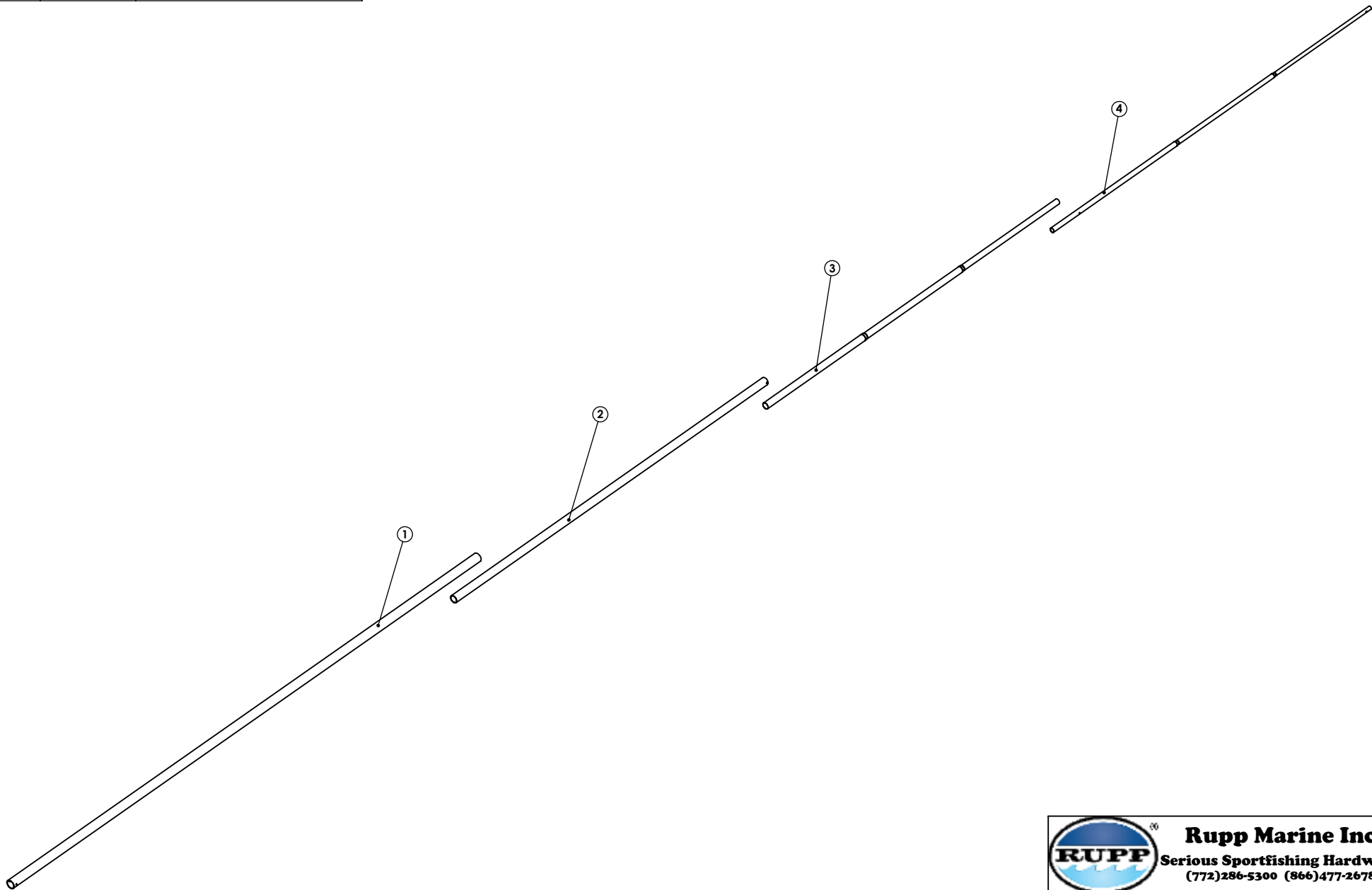
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002121

#	QTY	Part No	Description
1	1	03-1003-23	Tube
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16

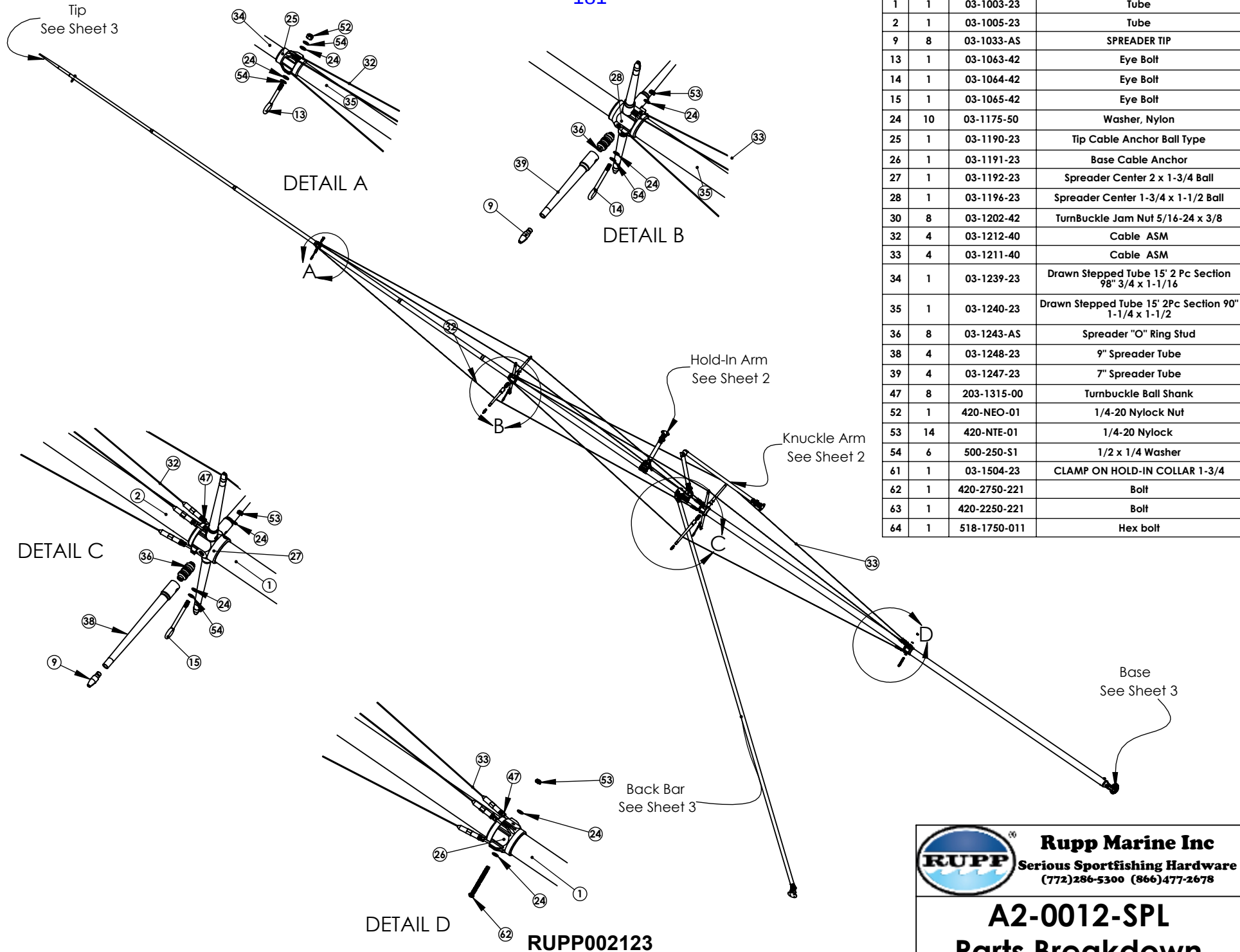


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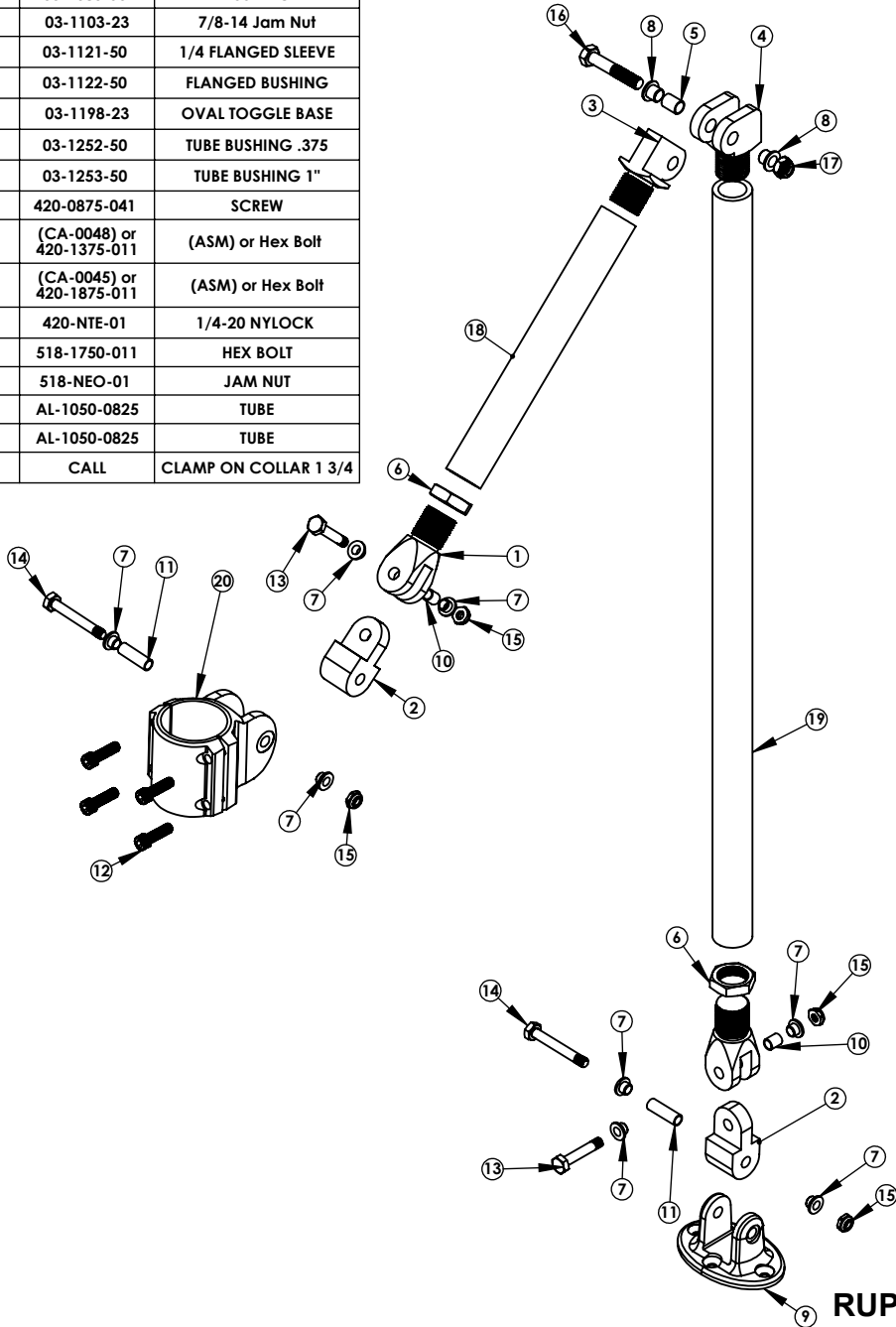


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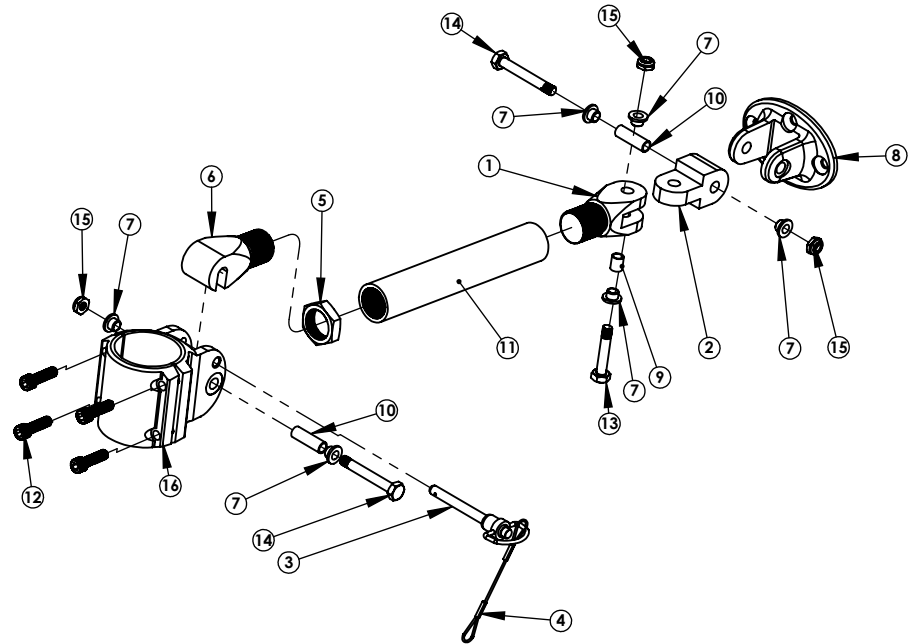
**A2-0012-SD**  
**Parts Breakdown**



KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



RUPP002124



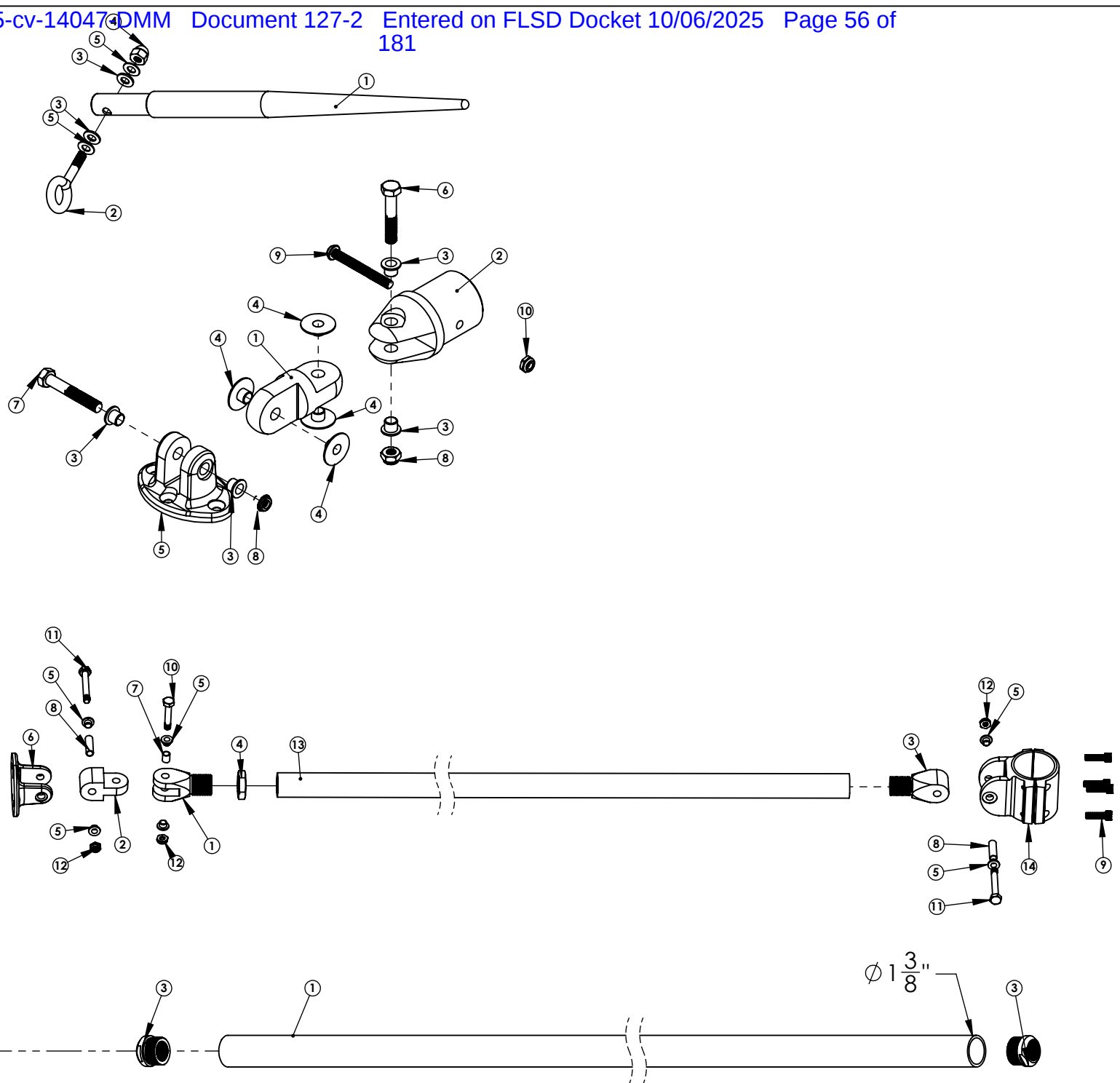
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

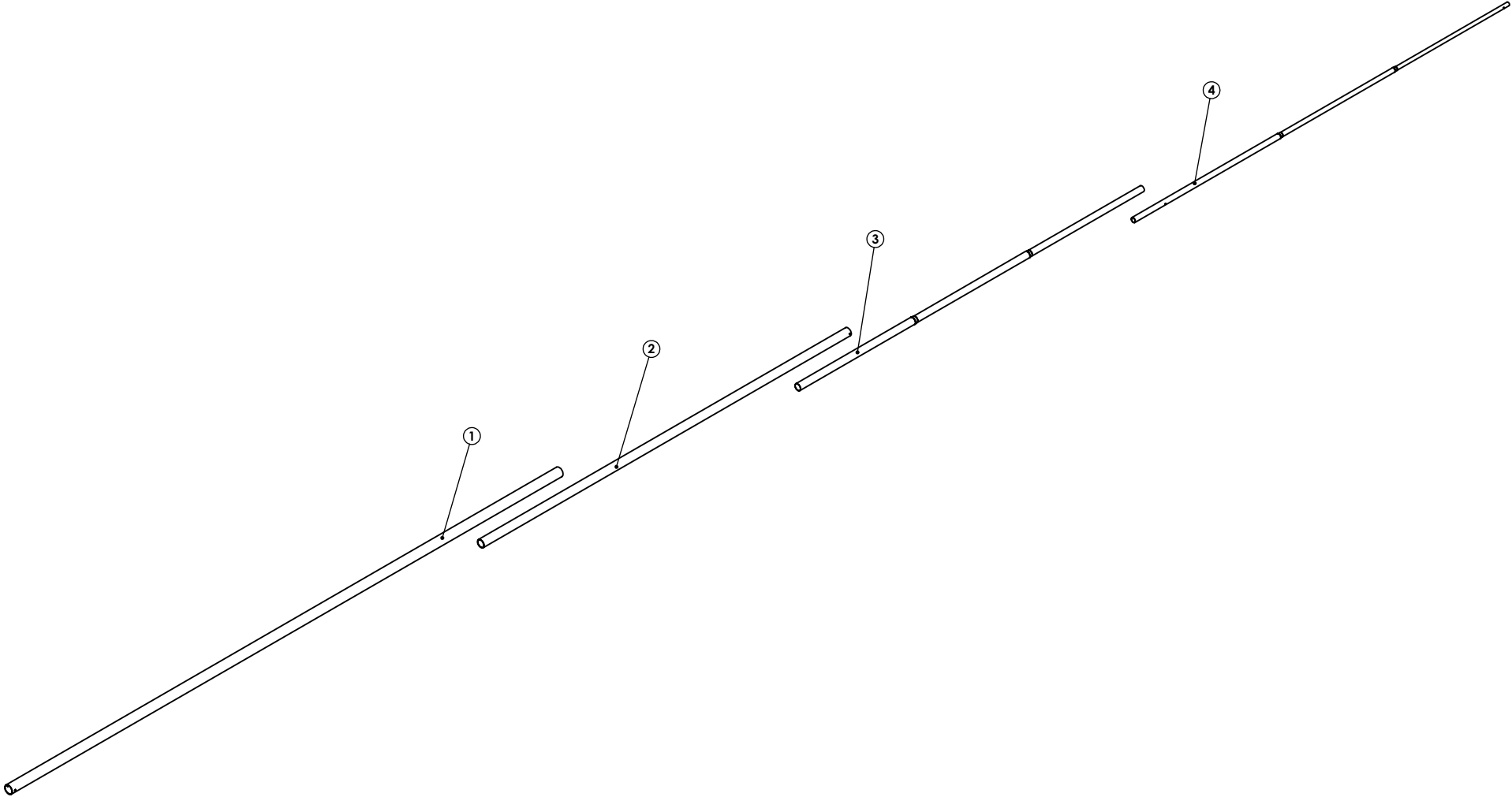
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002125

#	QTY	Part No	Description
1	1	03-1003-23	Tube
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16



RUPP002126



**Rupp Marine Inc**

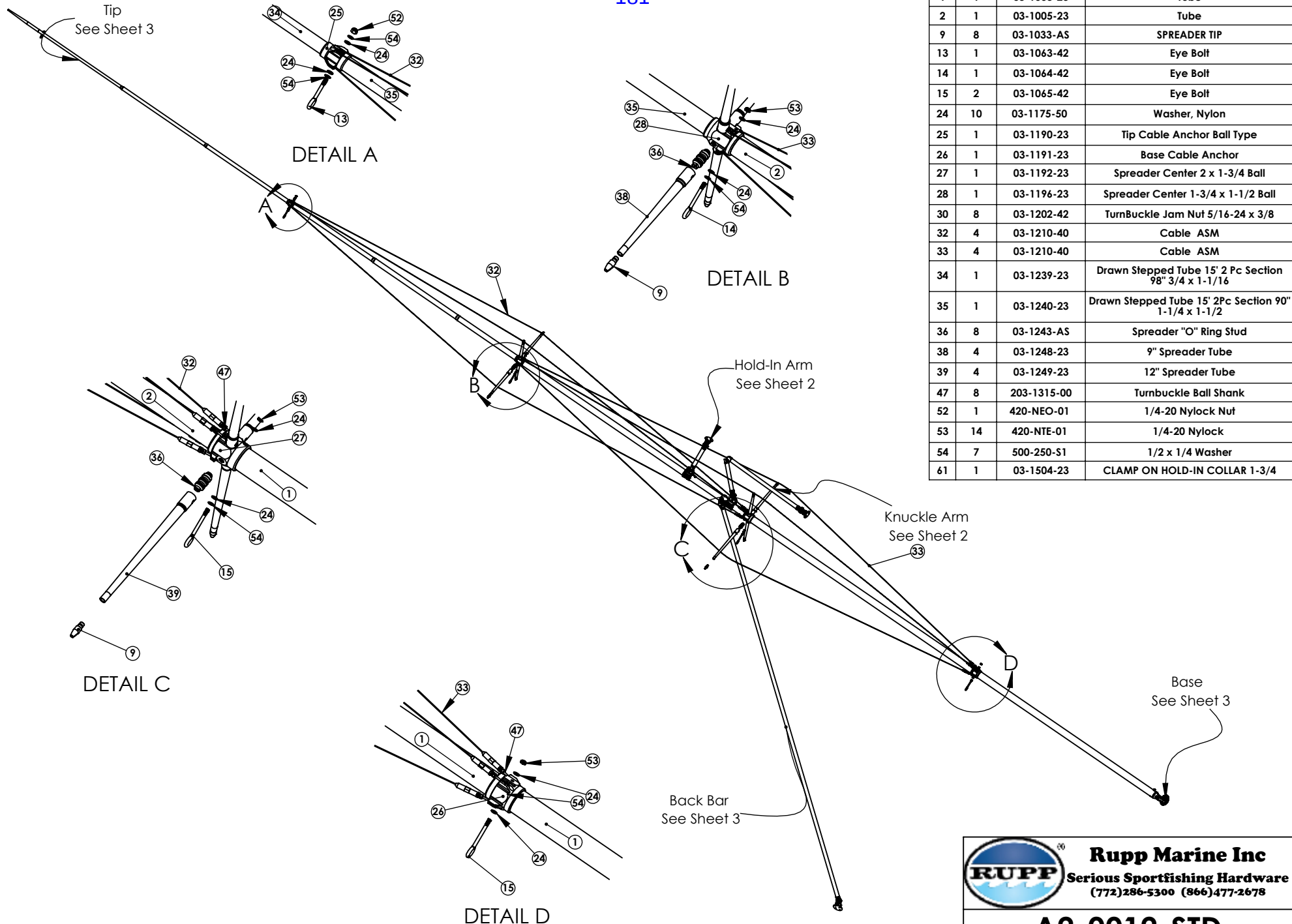
Serious Sportfishing Hardware

(772)286-5300 (866)477-2678

**A2-0012-SPL**

**Parts Breakdown**





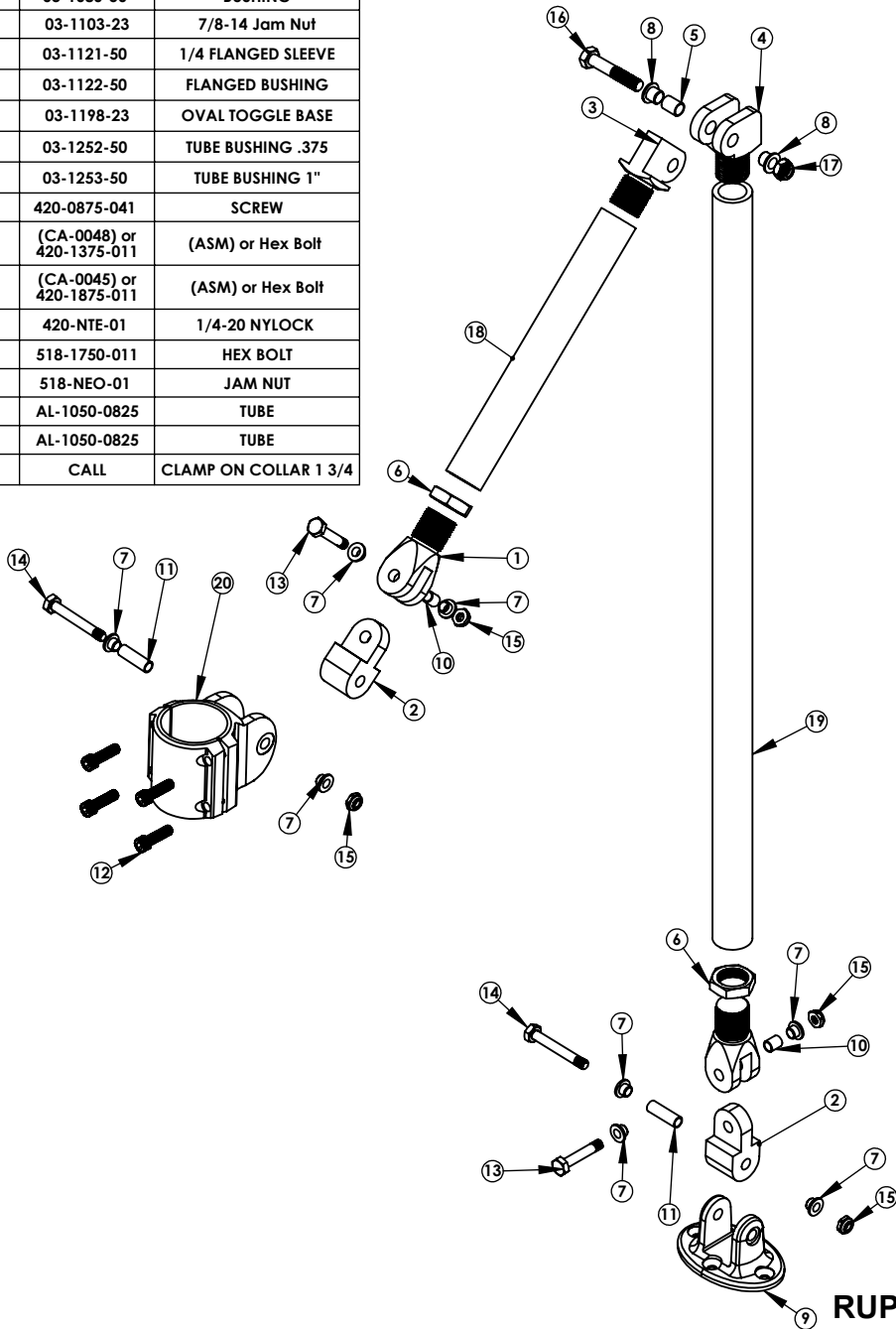
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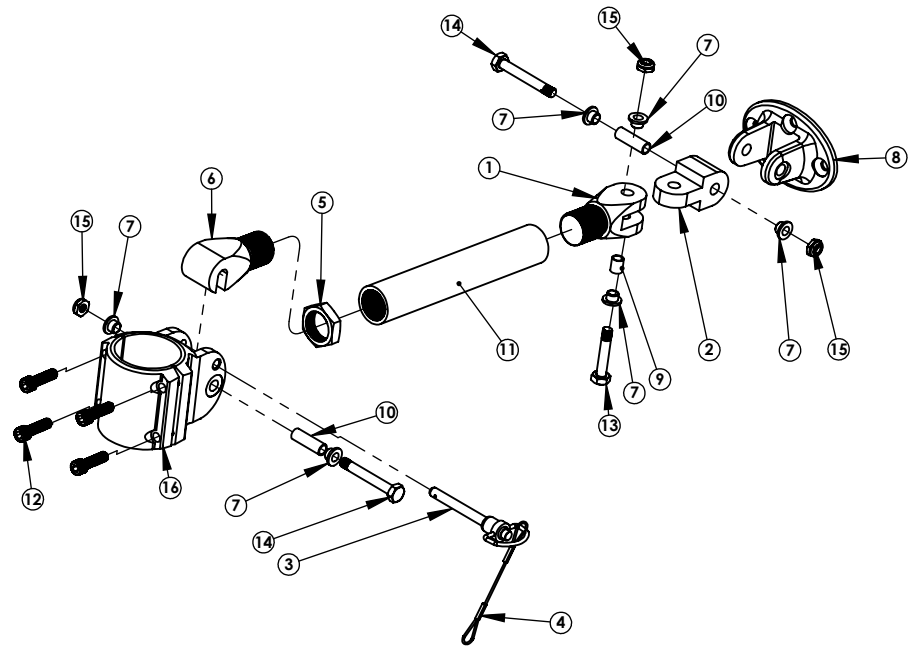
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**A2-0012-STD**  
**Parts Breakdown**

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



RUPP002128



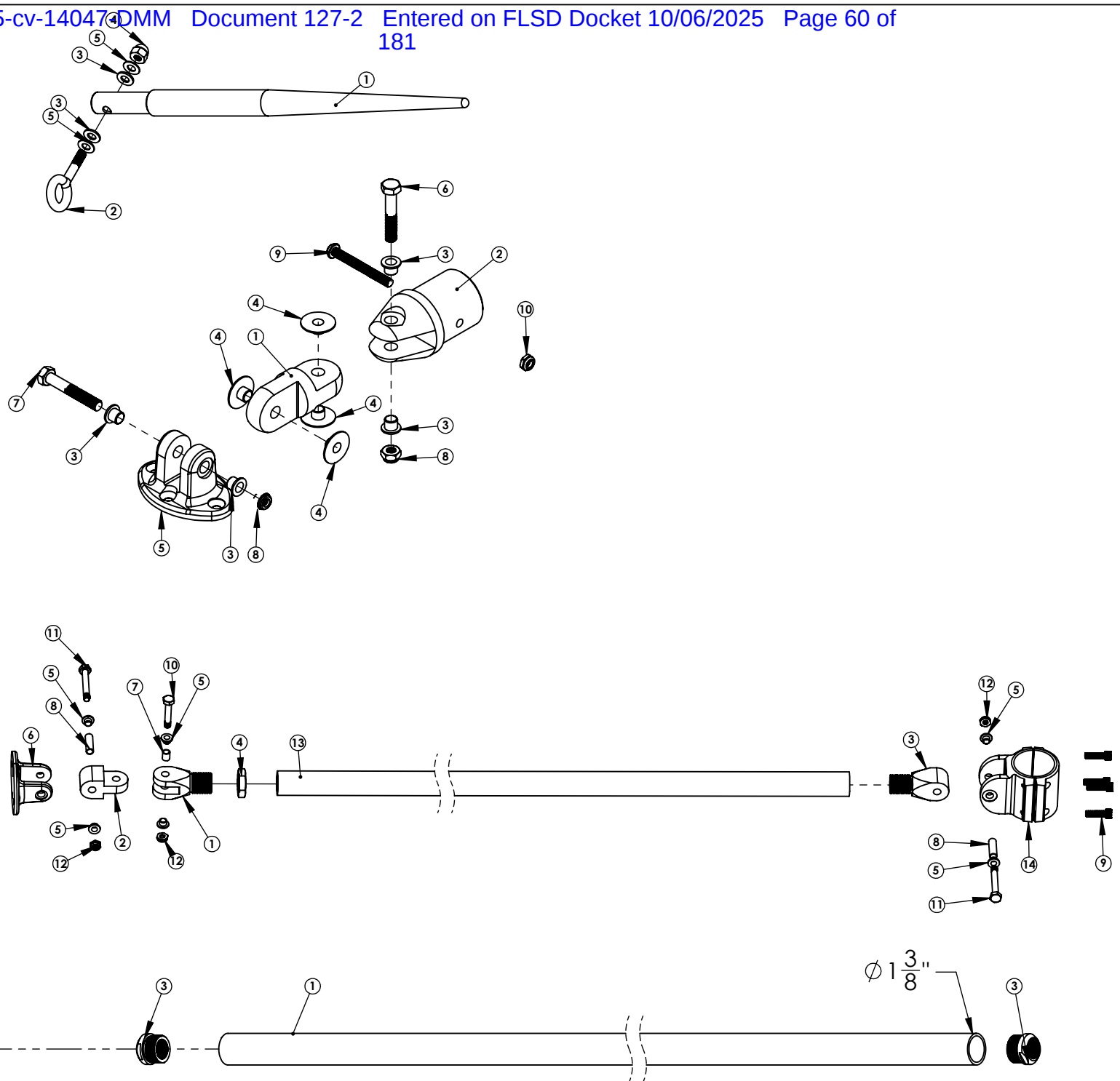
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

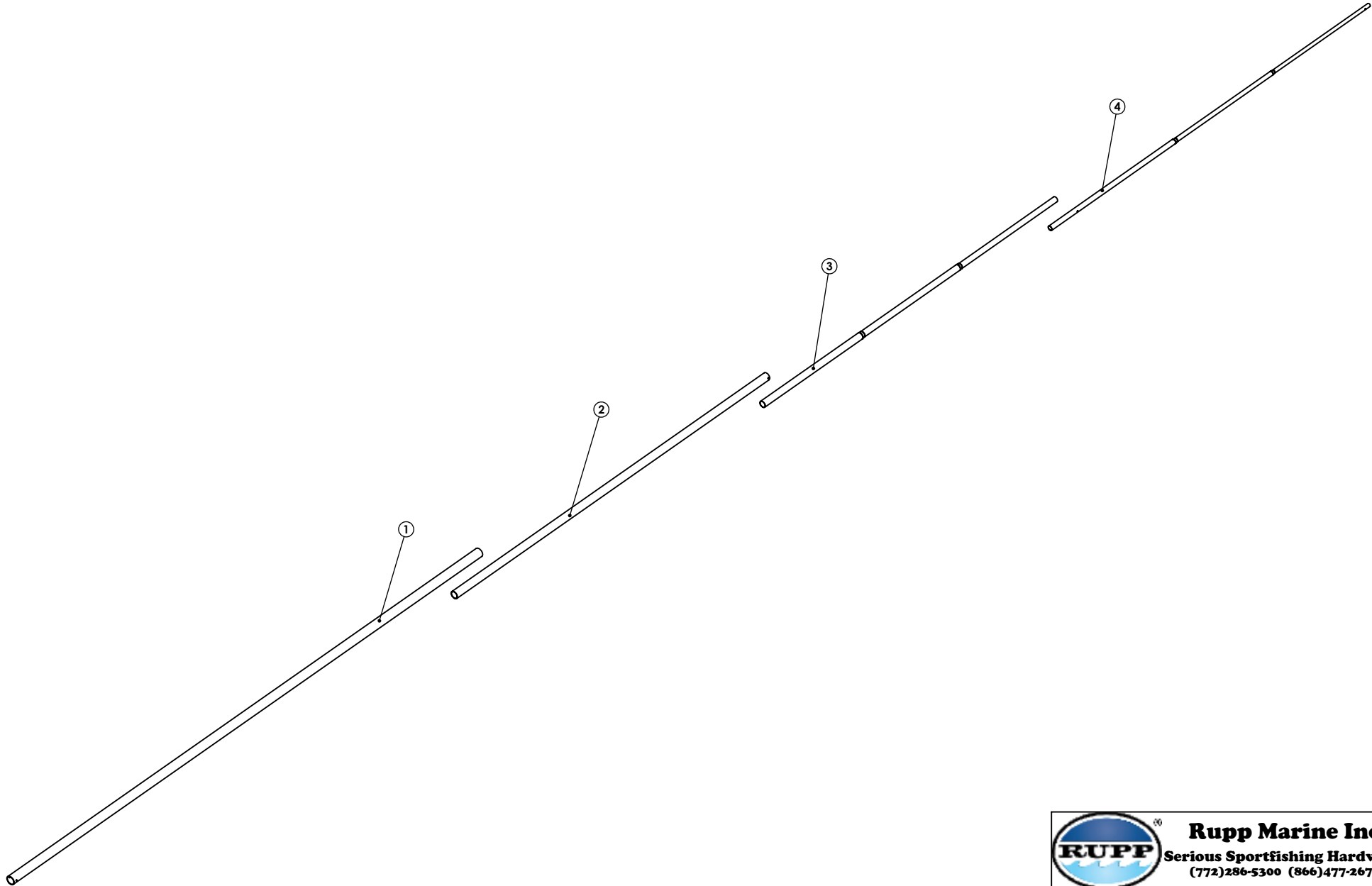
Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002129

Ø 1 3/8"

#	QTY	Part No	Description
1	1	03-1003-23	Tube
2	1	03-1005-23	Tube
3	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
4	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16

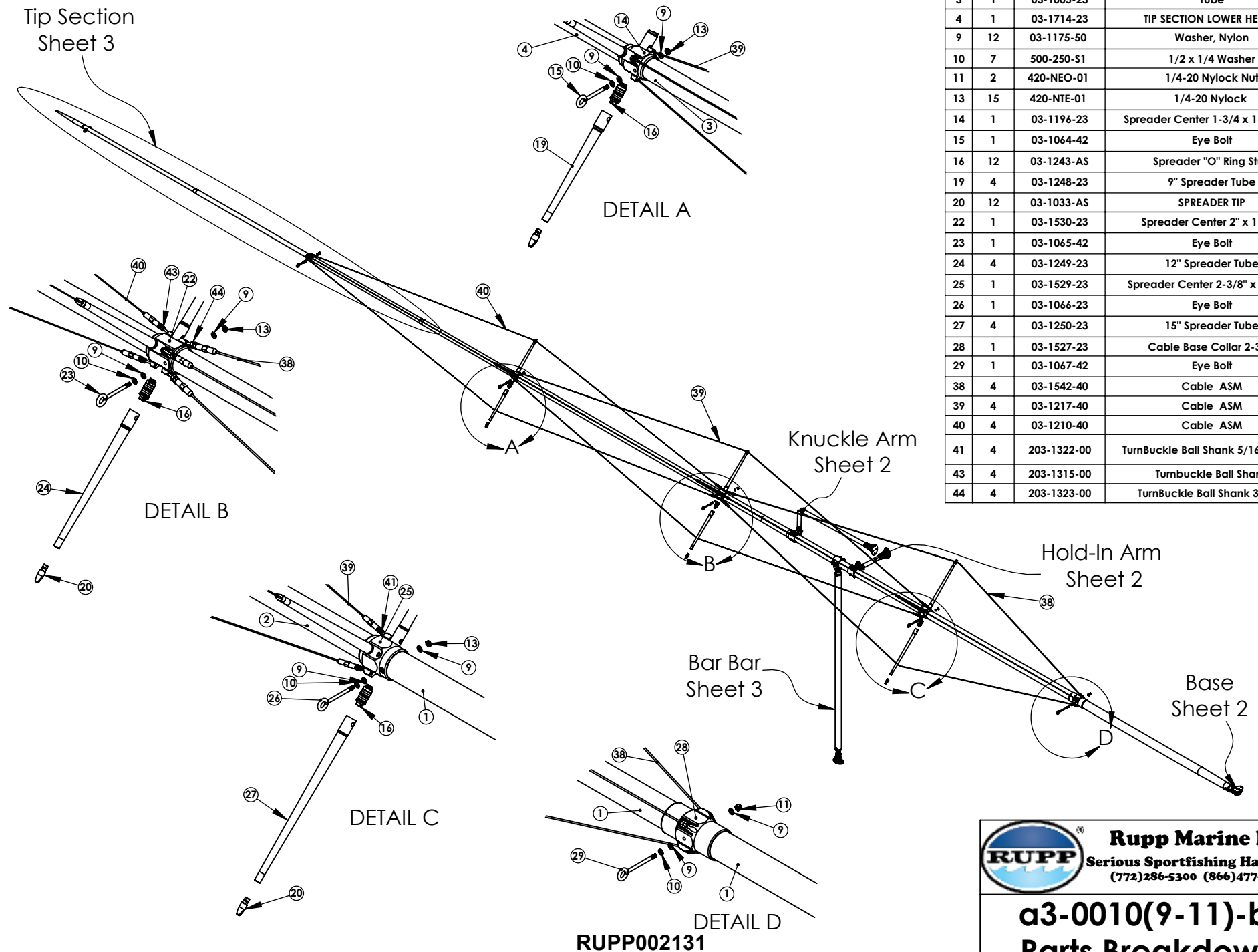


RUPP002130

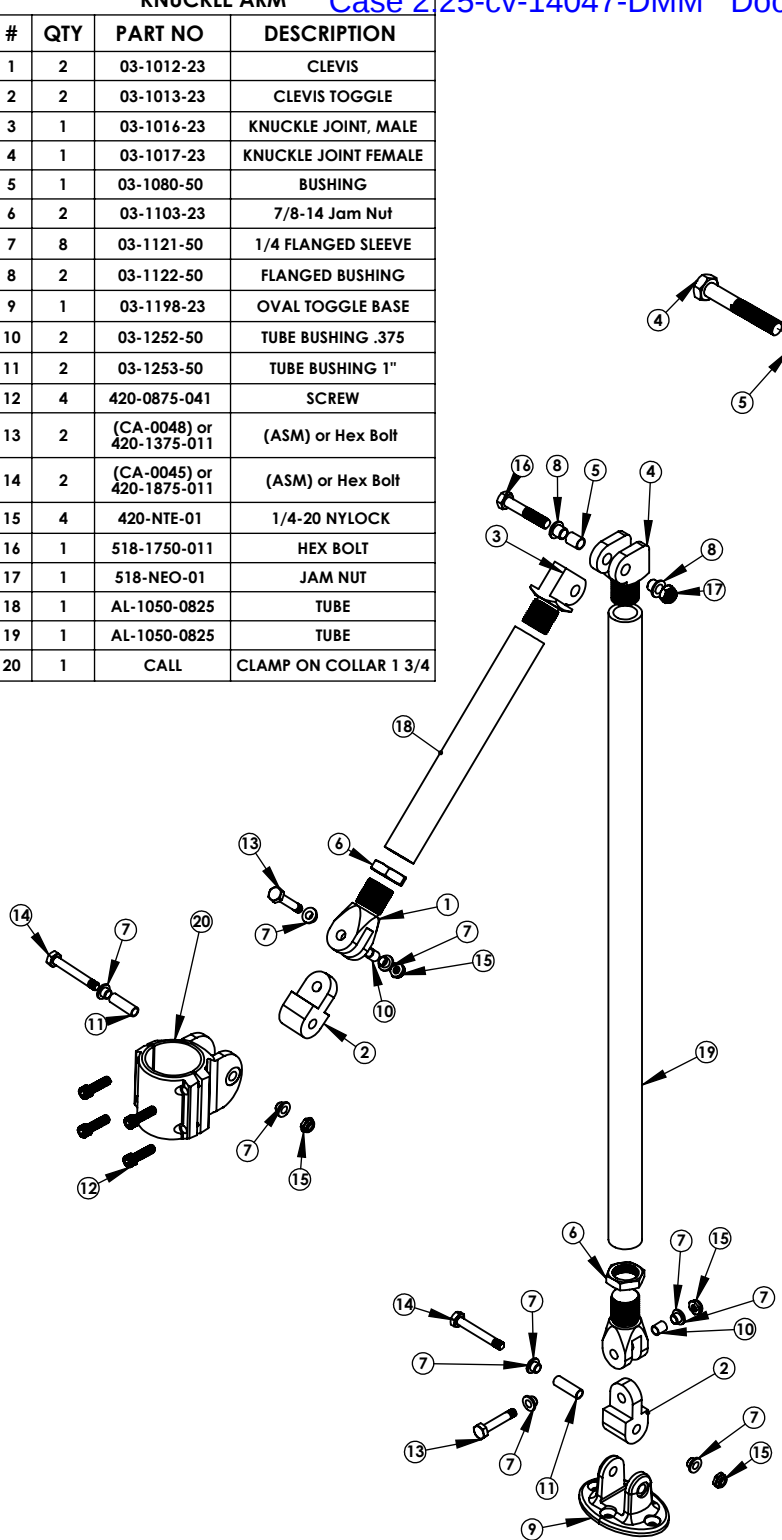


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**A2-0012-STD**  
**Parts Breakdown**

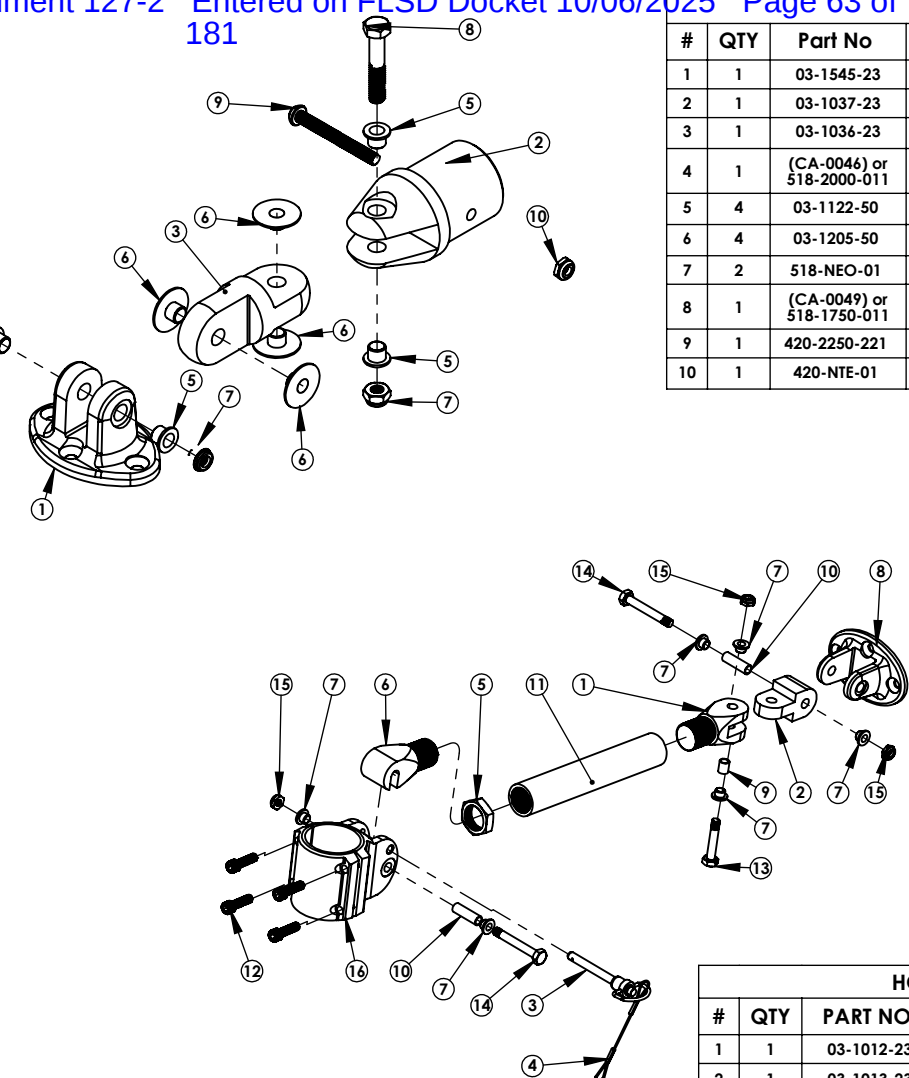


KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



RUPP002132

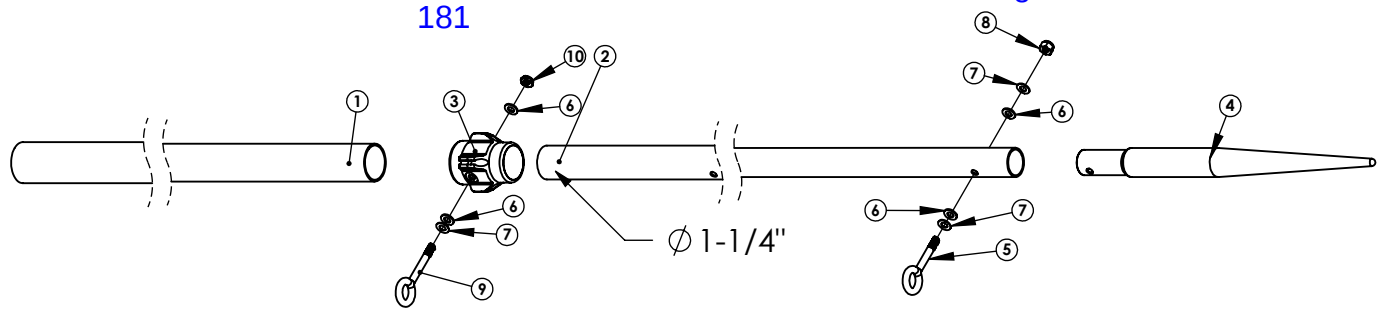
Base			
#	QTY	Part No	Description
1	1	03-1545-23	Oval Main Base
2	1	03-1037-23	Base Tube End 2"
3	1	03-1036-23	Base Toggle
4	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
5	4	03-1122-50	Flanged Bushing
6	4	03-1205-50	Base Toggle Bushing
7	2	518-NEO-01	Jam Nut
8	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
9	1	420-2250-221	Bolt
10	1	420-NTE-01	1/4-20 Nylock



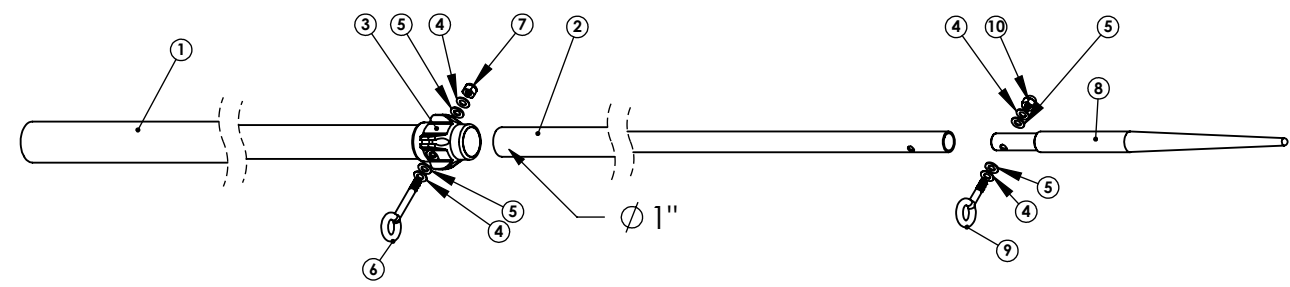
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

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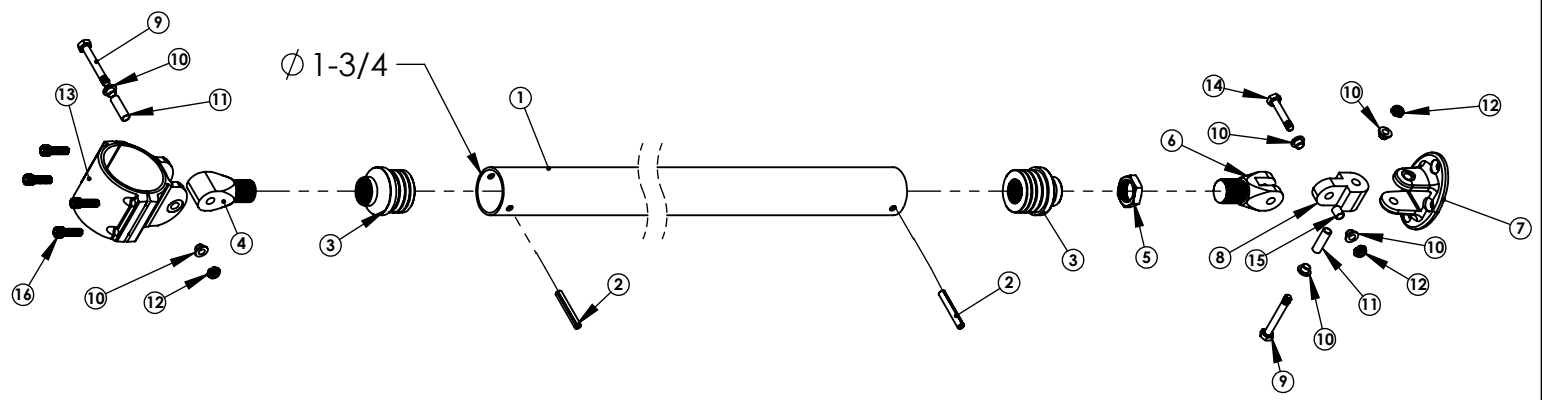
Heavy Tip Section			
#	QTY	Part No	Description
1	1	03-1714-23	TIP SECTION LOWER HEAVY
2	1	03-1715-23	TIP SECTION UPPER HEAVY
3	1	03-1717-23	TIP CABLE ANCHOR HEAVY
4	1	03-1716-23	TIP POINT/HEAVY
5	1	03-1062-42	Eye Bolt
6	4	03-1175-50	Washer, Nylon
7	3	500-250-S1	1/2 x 1/4 Washer
8	1	420-NEO-01	1/4-20 Nylock Nut
9	1	03-1063-42	Eye Bolt
10	1	420-NTE-01	1/4-20 Nylock



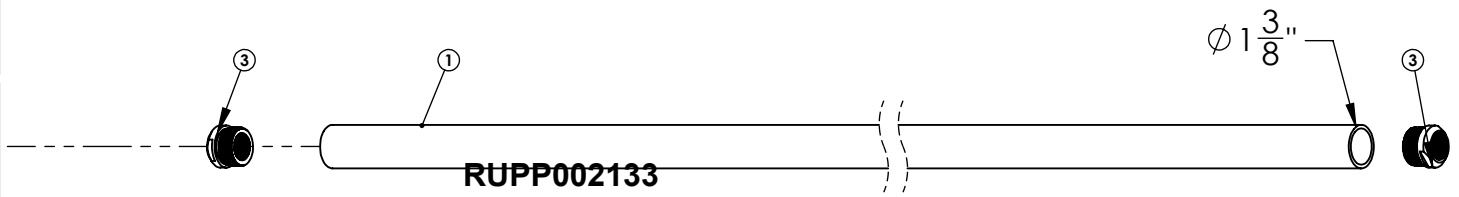
Std Tip Section			
#	QTY	Part No	Description
1	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
2	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
3	1	03-1190-23	Tip Cable Anchor Ball Type
4	4	500-250-S1	1/2 x 1/4 Washer
5	4	03-1175-50	Washer, Nylon
6	1	03-1063-42	Eye Bolt
7	1	420-NEO-01	1/4-20 Nylock Nut
8	1	03-1023-23	Tip Point
9	1	03-1061-42	Eye Bolt
10	1	420-CBO-00	Cap Nut



BR Back Bar			
#	QTY	Part No	Description
1	1	03-1553-23	Tube
2	2	03-1697-40	1/4" x 1 3/4" Spring Pin
3	2	03-1556-23	1-3/4 x 7/8 REDUCER
4	1	03-1022-23	Solid Clevis 7/8 x 14
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1012-23	Clevis
7	1	03-1198-23	Oval Toggle Base
8	1	03-1013-23	Clevis Toggle
9	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
10	6	03-1121-50	1/4 Flanged Sleeve
11	2	03-1253-50	Tube Bushing 1"
12	3	420-NTE-01	1/4-20 Nylock
13	1	Call	Clamp on Collar 2-3/8
14	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
15	1	03-1252-50	Tube Bushing .375
16	4	420-0875-041	Screw



Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



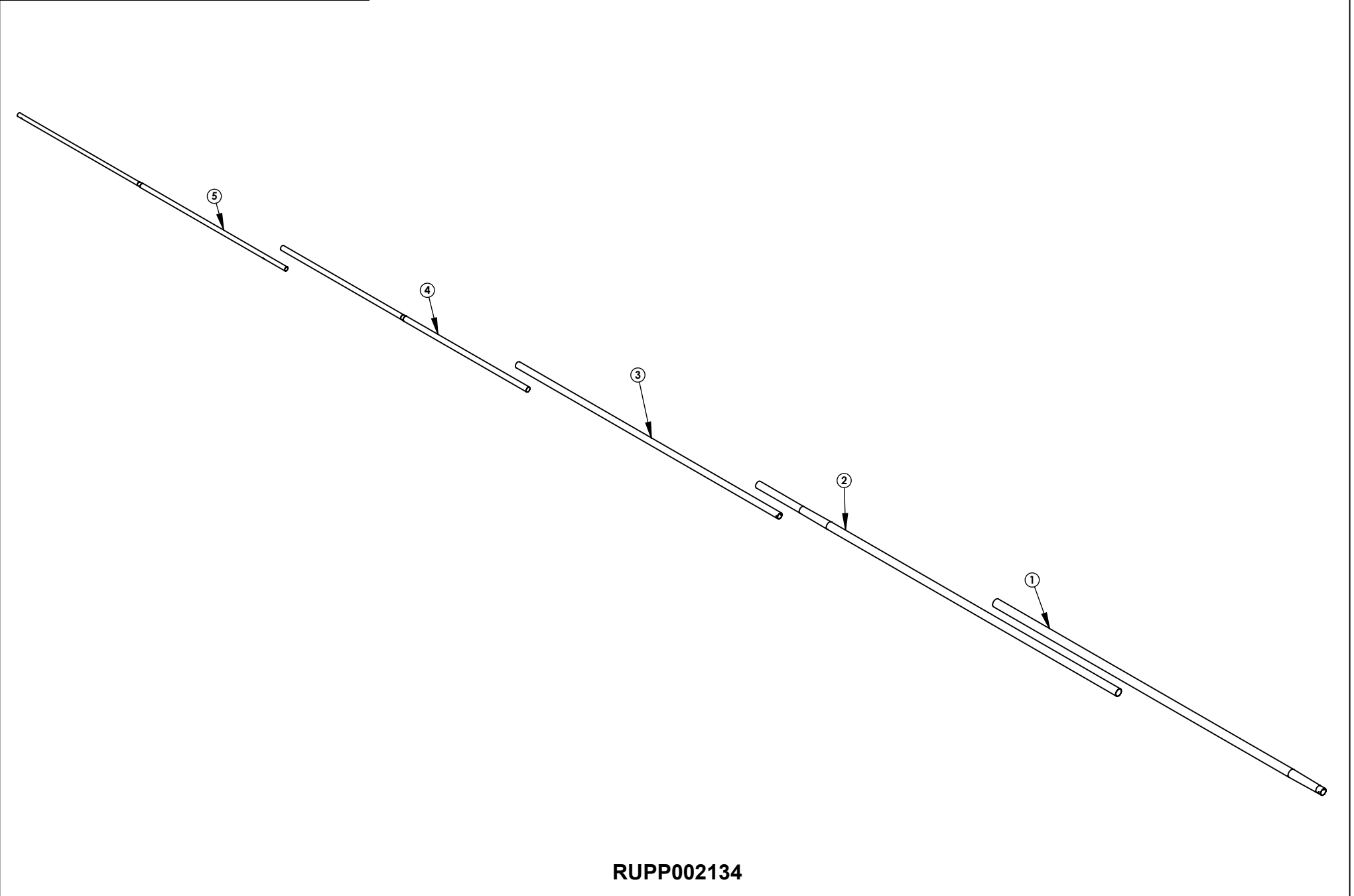
RUPP002133

1 3/8"

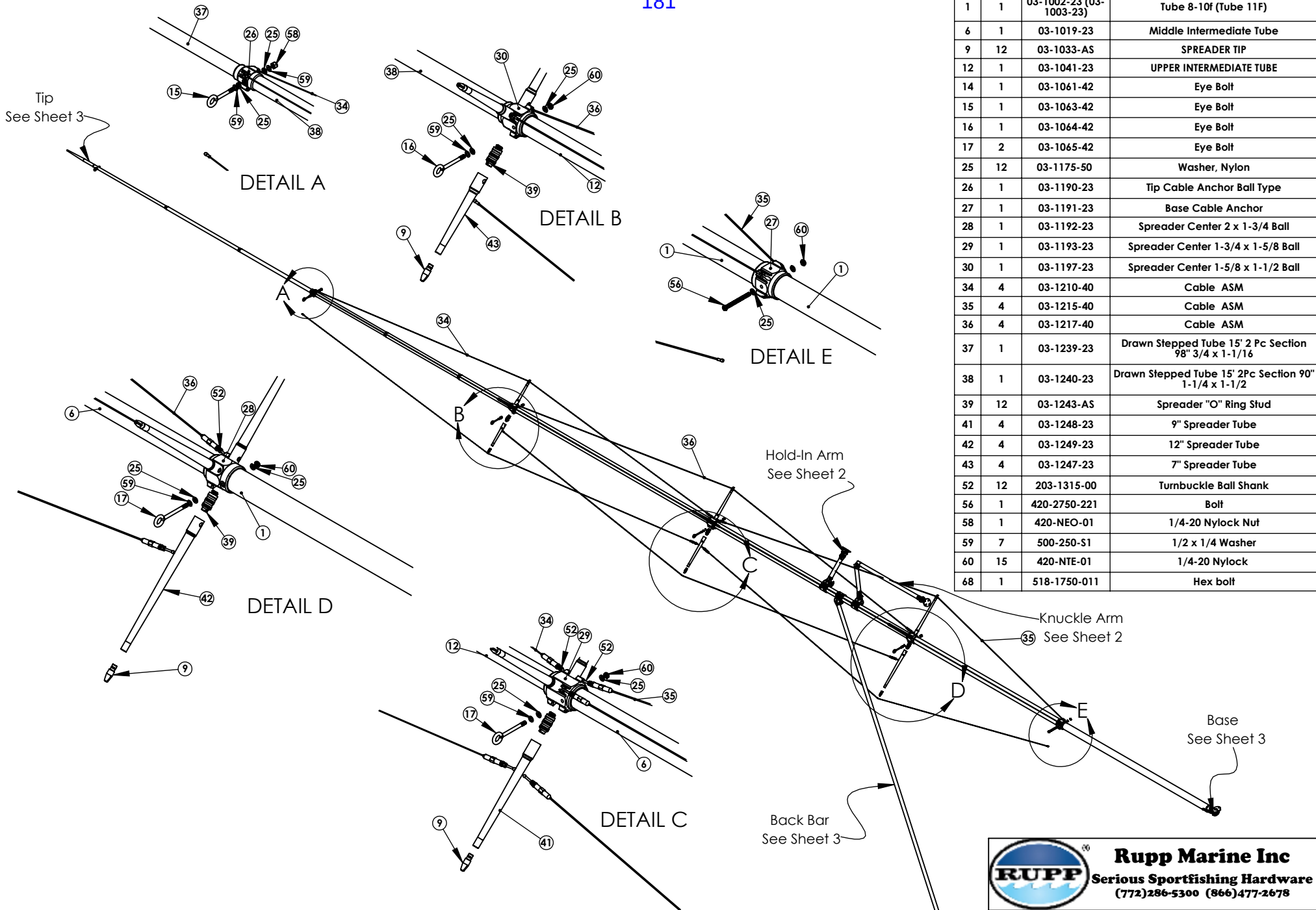
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#	QTY	Part No	Description
1	1	03-1532-23	TAPERED BASE TUBE
2	1	03-1533-23	Tapered Intermediate Tube
3	1	03-1005-23	Tube
4	1	See Sheet 3	TIP SECTION UPPER HEAVY
5	1	See sheet 3	TIP SECTION LOWER HEAVY



RUPP002134



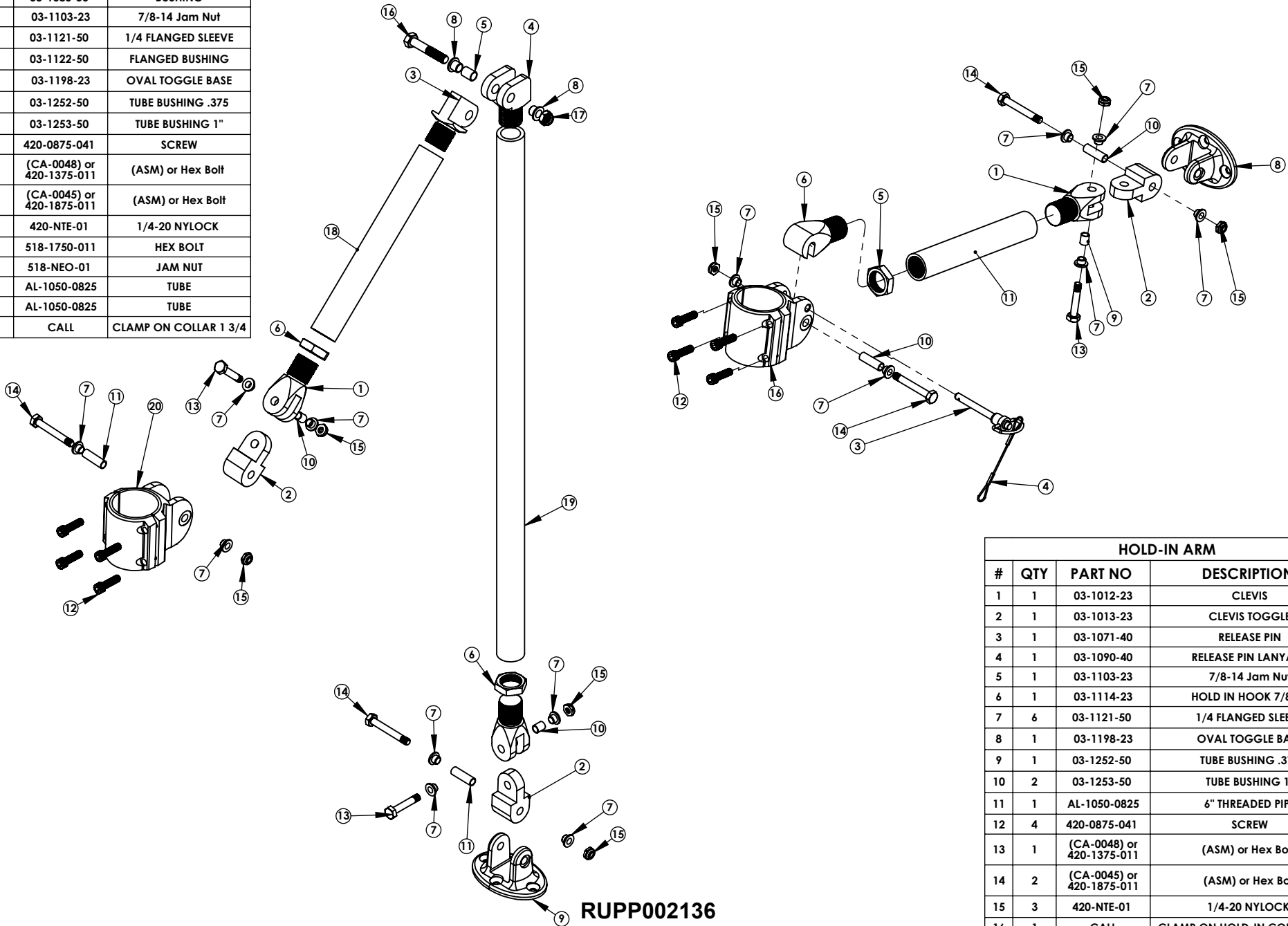
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**A3-0010-SD**  
**Parts Breakdown**

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



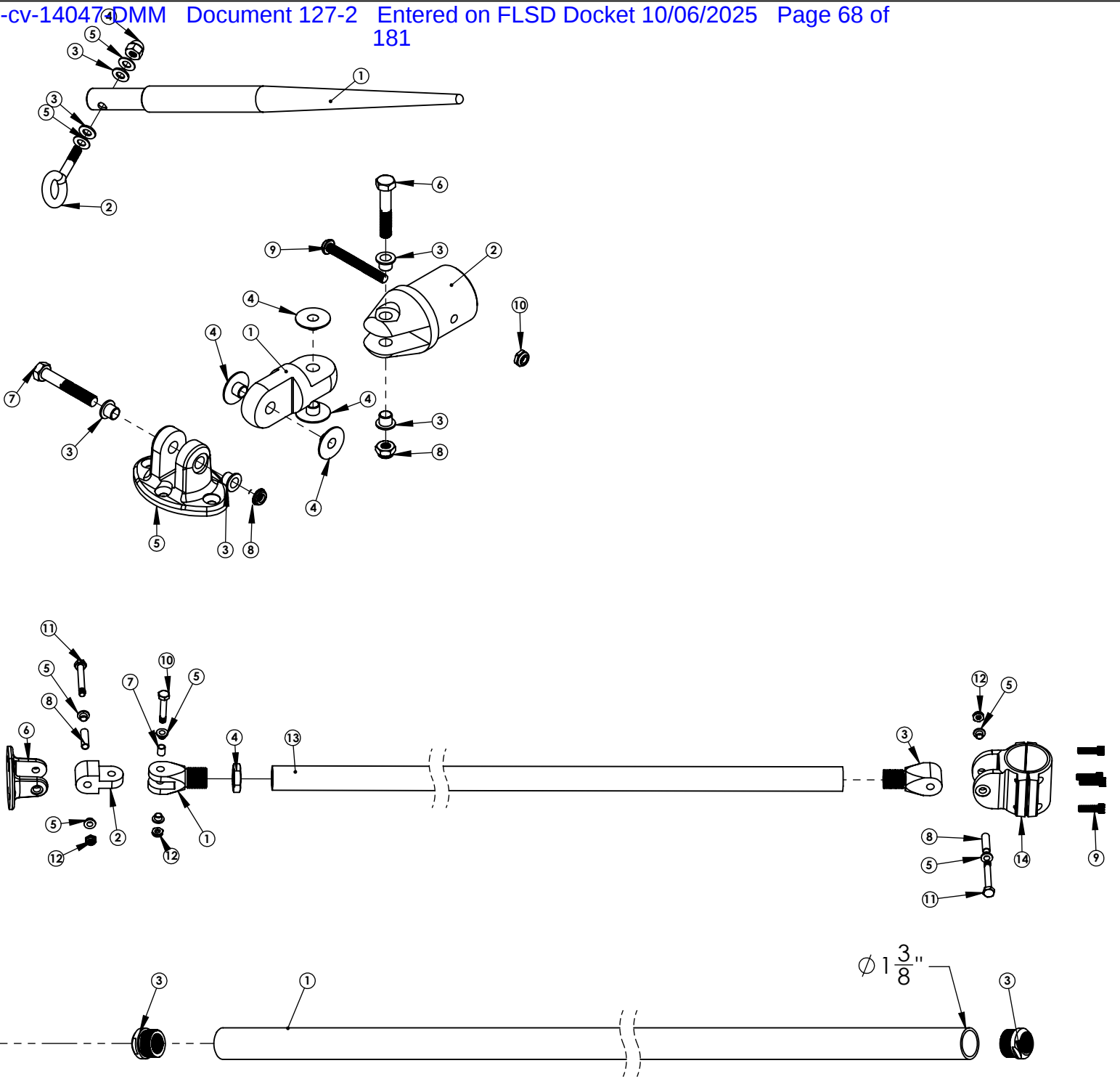
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

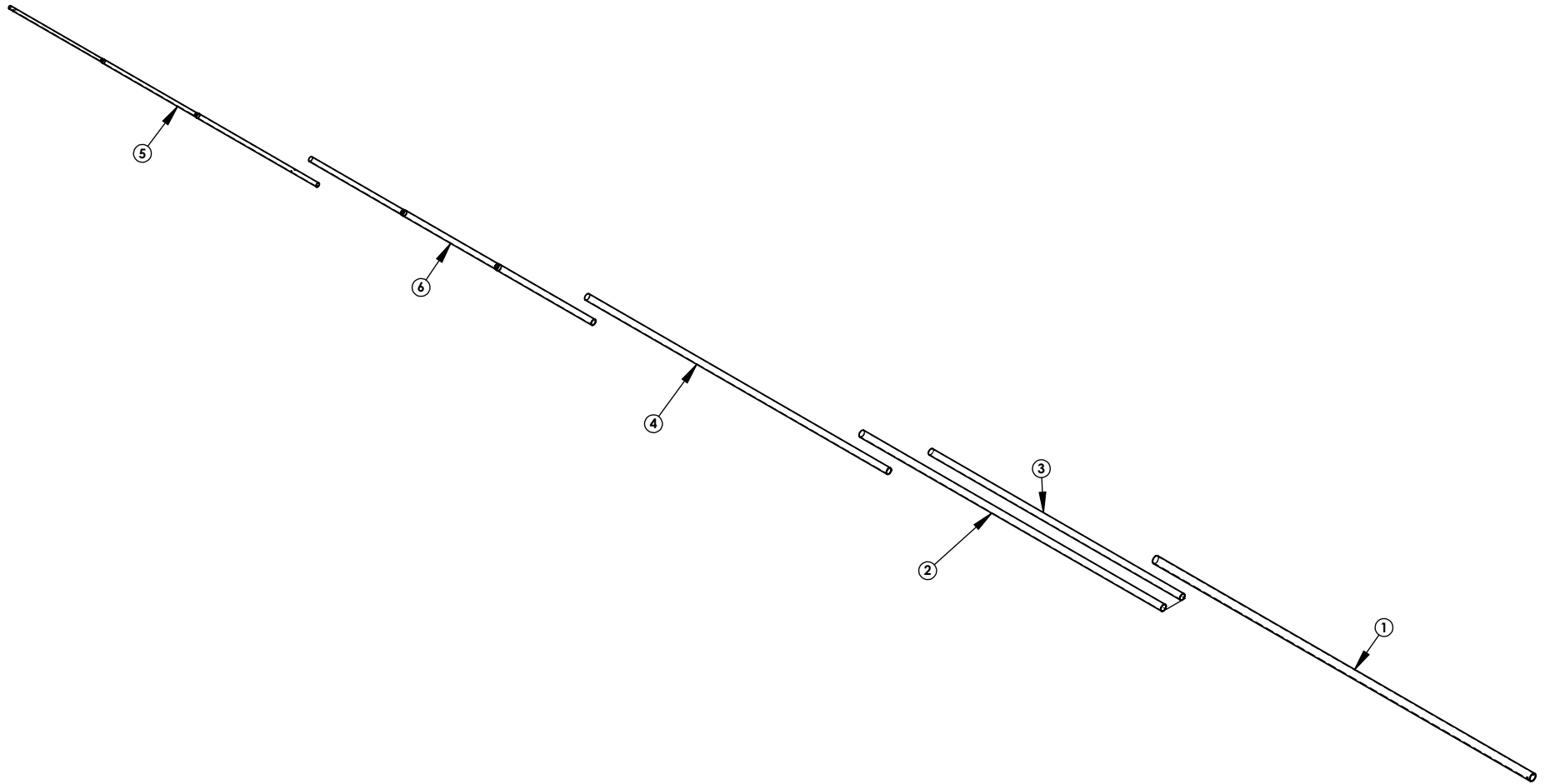
Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002137

Ø 1 3/8"

#	QTY	Part No	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1019-23	Middle Intermediate Tube
3	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
4	1	03-1041-23	UPPER INTERMEDIATE TUBE
5	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
6	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2

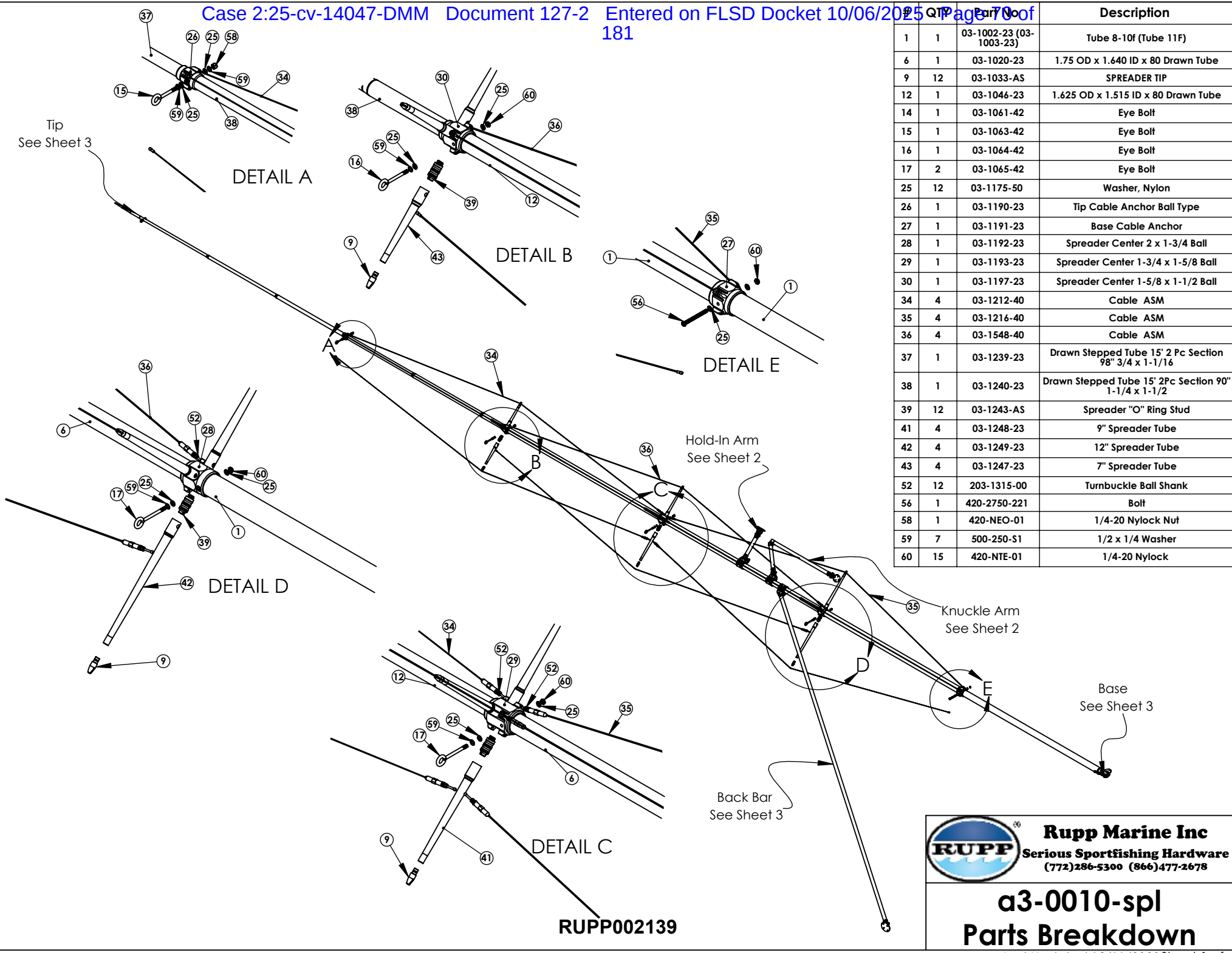


RUPP002138



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**A3-0010-SD**  
**Parts Breakdown**



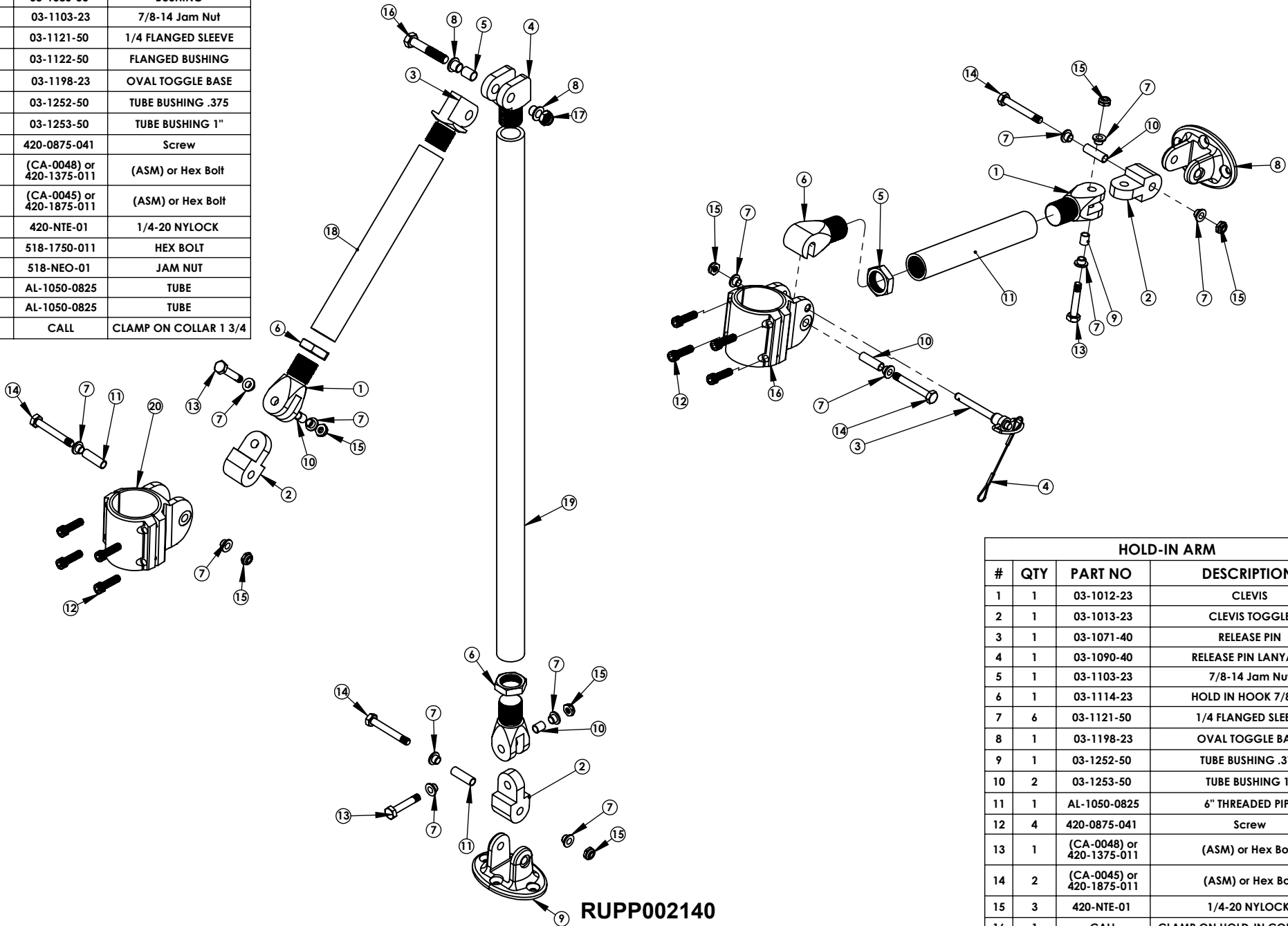
#	QTY	Part No.	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
6	1	03-1020-23	1.75 OD x 1.640 ID x 80 Drawn Tube
9	12	03-1033-AS	SPREADER TIP
12	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
14	1	03-1061-42	Eye Bolt
15	1	03-1063-42	Eye Bolt
16	1	03-1064-42	Eye Bolt
17	2	03-1065-42	Eye Bolt
25	12	03-1175-50	Washer, Nylon
26	1	03-1190-23	Tip Cable Anchor Ball Type
27	1	03-1191-23	Base Cable Anchor
28	1	03-1192-23	Spreader Center 2 x 1-3/4 Ball
29	1	03-1193-23	Spreader Center 1-3/4 x 1-5/8 Ball
30	1	03-1197-23	Spreader Center 1-5/8 x 1-1/2 Ball
34	4	03-1212-40	Cable ASM
35	4	03-1216-40	Cable ASM
36	4	03-1548-40	Cable ASM
37	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
38	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
39	12	03-1243-AS	Spreader "O" Ring Stud
41	4	03-1248-23	9" Spreader Tube
42	4	03-1249-23	12" Spreader Tube
43	4	03-1247-23	7" Spreader Tube
52	12	203-1315-00	Turnbuckle Ball Shank
56	1	420-2750-221	Bolt
58	1	420-NEO-01	1/4-20 Nylock Nut
59	7	500-250-S1	1/2 x 1/4 Washer
60	15	420-NTE-01	1/4-20 Nylock

**Rupp Marine Inc**  
**Serious Sportfishing Hardware**  
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**a3-0010-spl**  
**Parts Breakdown**

Last Updated 12/11/2020 Sheet 1 of 4

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	Screw
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



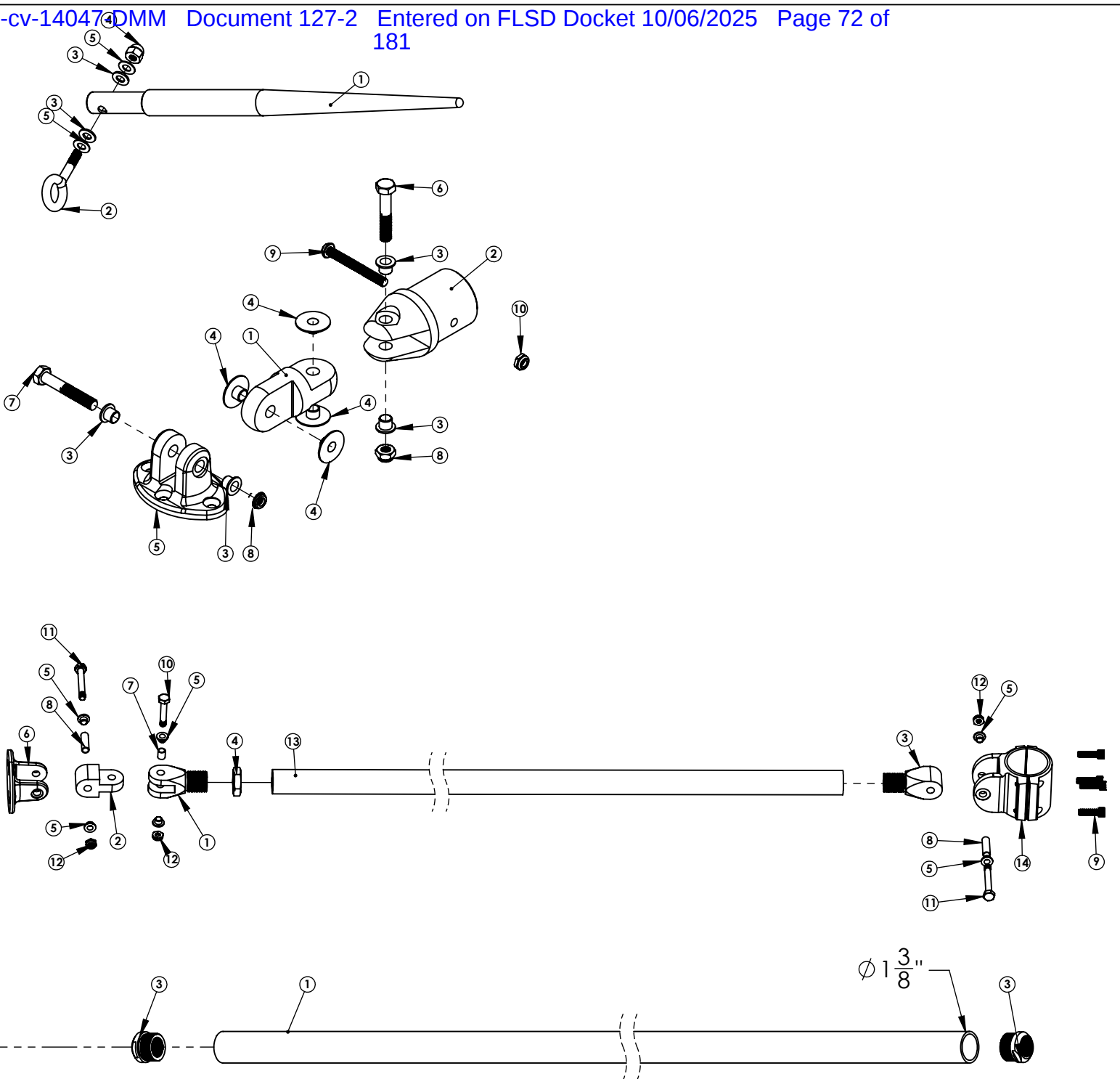
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	Screw
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	Screw
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer

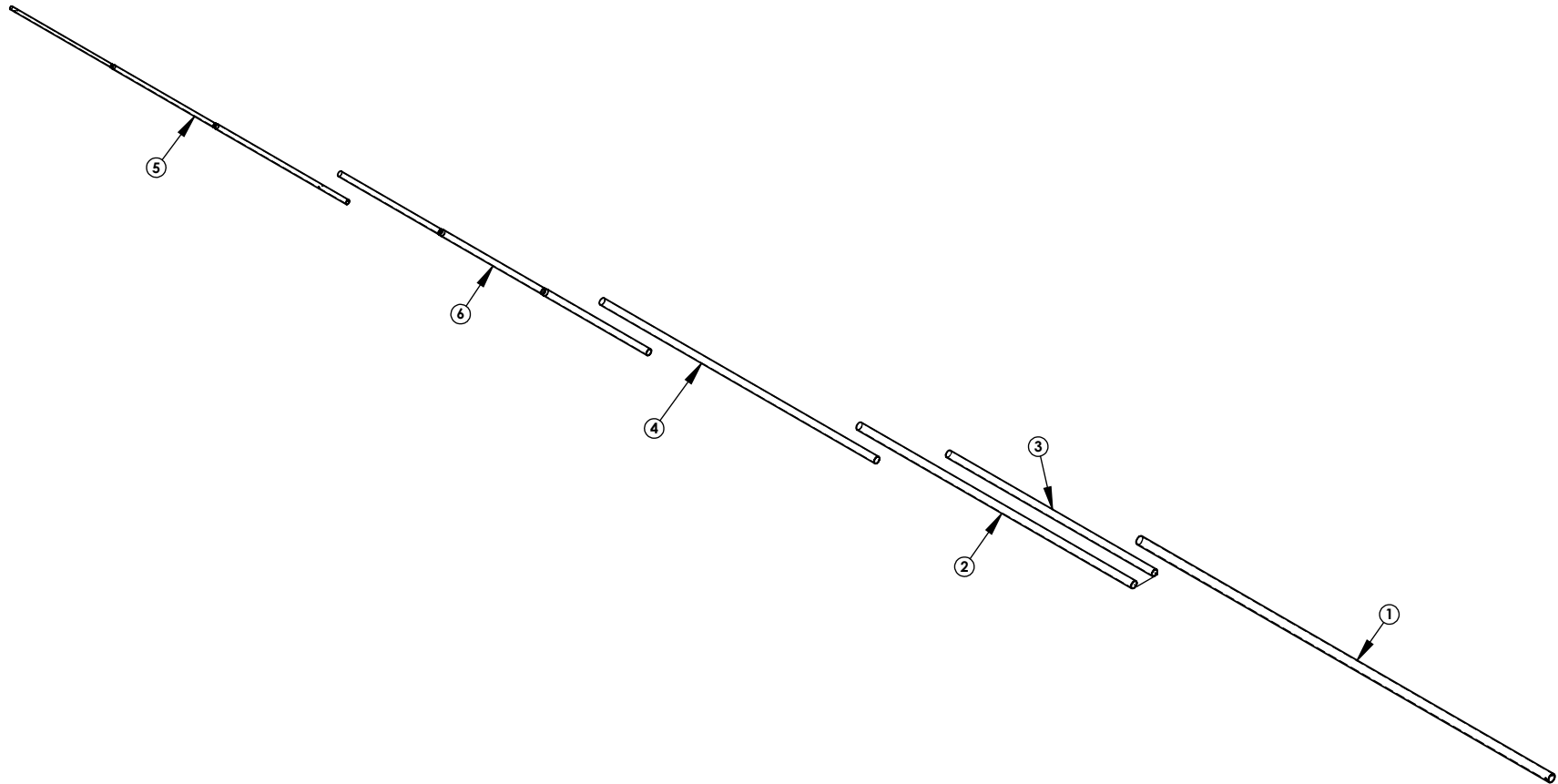


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Ø 1 3/8"



#	QTY	Part No	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1020-23	1.75 OD x 1.640 ID x 80 Drawn Tube
3	1	03-1045-23	1.625 OD x 1.515 ID x 60 Drawn Tube
4	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
5	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
6	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2



RUPP002142



**Rupp Marine Inc**

**Serious Sportfishing Hardware**

(772)286-5300 (866)477-2678

**a3-0010-spl**

**Parts Breakdown**

**RUPP MARINE INC**  
PORT SALERNO, FL.

# ASSEMBLY INSTRUCTION FOR 3 SPREADER Rupprigger

To assist assembly, construct 2 or 3 stands from 2 x 4's as shown in Fig. 1.

1. Preassemble 3 spreader assemblies with spreader tubes. See Fig. 2 (lubricate "O" Rings for easier Installation.

2. Layout 2" dia. base tube on assembly stands with serial number palte down. See Fig. 3.

3. Remove bolt, SS washer, nylon washers and nut from base collar. Keep handy for reassembly on base tube.

4. Over the open of base tube slide on these parts in order: Base Anchor Collar, Hold-In-Arm (Hold-In Bolt toward base tube clevis). See Fig. 3A. The socket end of base anchor collar should be pointing away from the base tube clevis. See Fig. 3B.

5. Align base anchor collar with pre-drilled holes near middle of the base tube. Secure with screw, nylon washers and nut previously removed.

6. Remove eye bolt, washers and nut from preassembled 2' spreader assembly. Keep hardware handy.

7. Slide large end of collar over open end of of base tube and align holes with predrilled holes in base tube. See Fig. 4.

8. Insert double drilled end of of 1-3/4" second stage tube through the open end of of the spreader collar and 2" base tube. Align the first hole in this tube with the hole through spreader collar and 2" base tube. Bolt together using eye bolt, SS washer nylon washers and lock nut. See Fig. 6A for stacking order. Eye bolt up name plate down.

9. Over the open end of second stage tube, slide on back bar collar with ears up. See Fig. 4.

10. Remove eye bolt, nut and washers from 1-3/4" x 1-5/8" spreader collar. Keep these handy. Slide large end of collar over open end of second stage tube and align holes. Insert 1-5/8" x 8' 3rd stage tube with drilled hole approx 12" from end through collar and into top of second stage tube. Bolt the 3 units together. See Fig. 6A for stacking order, eye bolt up.

11. Using same procedure, slide large end of third stage spreader over open end of 1-5/8" x 1-1/2" x 8' tube slide the 90" stepped tube into the third stage spreader and bolt the 3 units together.

12. Remove eye bolt, washers and nut from tip anchor collar. Slide over open end of 90" stepped tube, insert the 98" stepped tube, align holes and bolt together.

13. Remove eye bolt , washers and cap nut from rigger tip. Insert tip into open end of 98" stepped tube and bolt using stack order in Fig. 6B. All eye bolt eyes used in assemblies must be on the same side of the Rupprigger (up) and name plate (down).

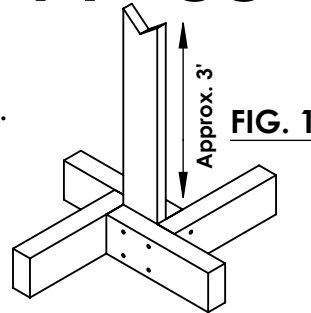


FIG. 1

FIG. 2

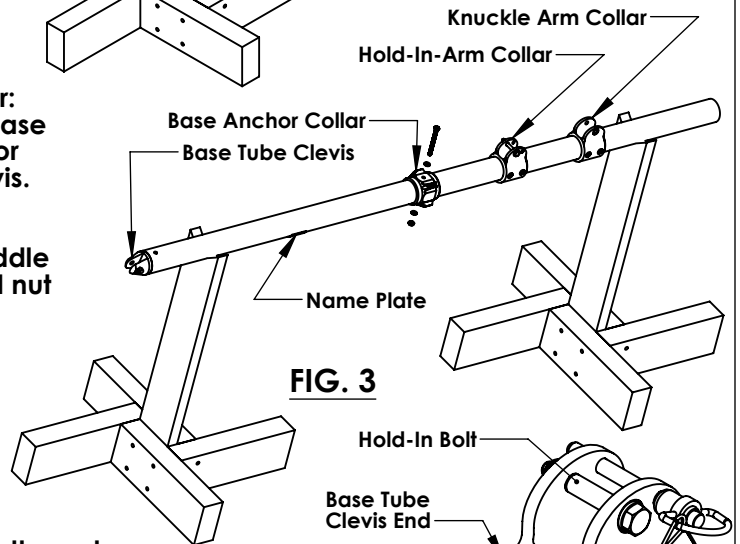
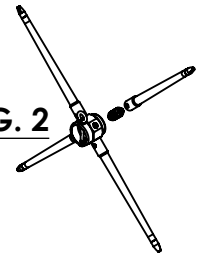


FIG. 3

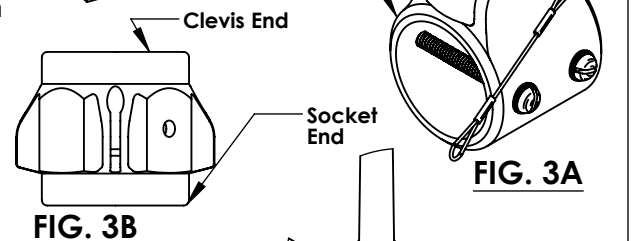


FIG. 3B

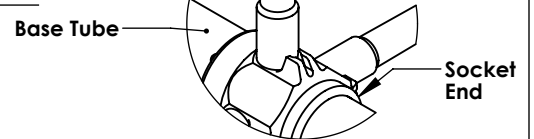


FIG. 4A

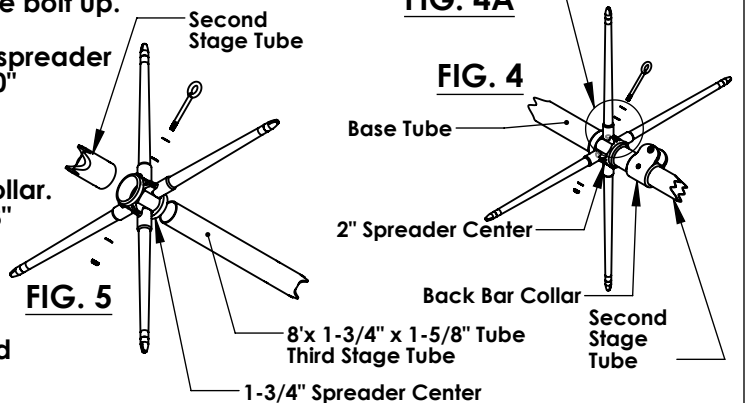


FIG. 4

FIG. 5

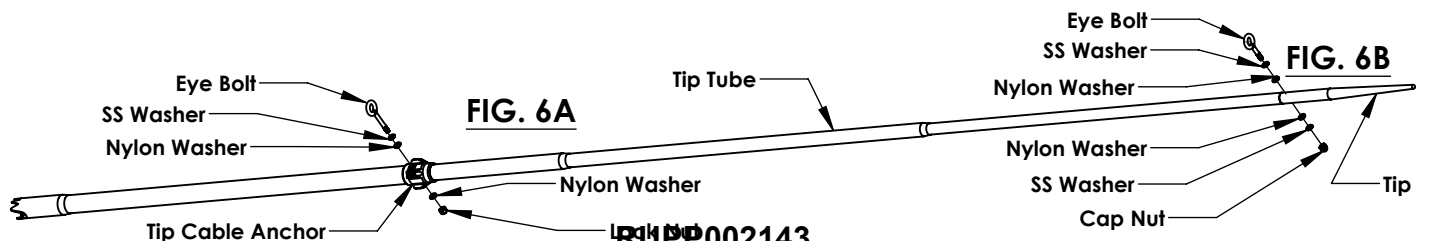
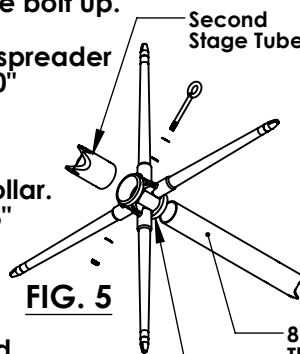


FIG. 6A

FIG. 6B

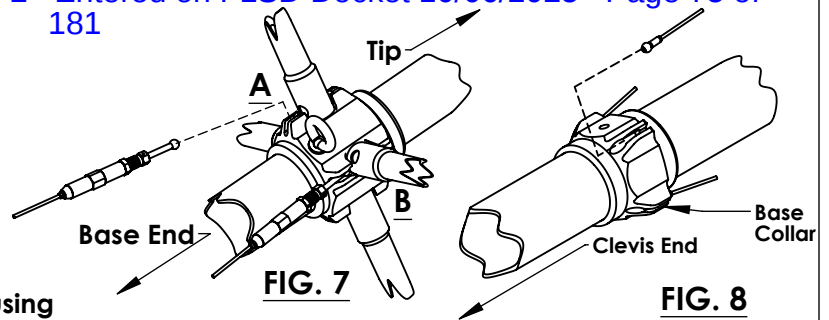
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PORT SALERNO, FL.

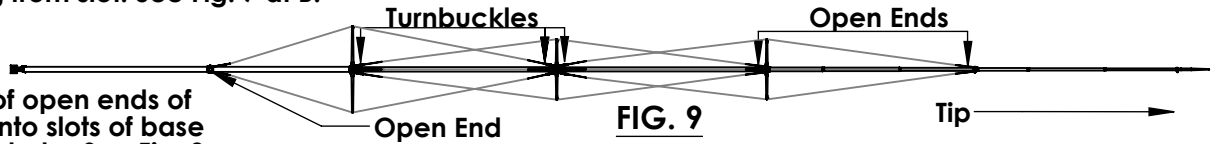
**14. Installation and adjustment of Rupp Lock-Ball and Socket cable system.**

A. Align holes at base of spreader tubes with slots of sockets on base end of 2nd stage spreader collar. See Fig 7 at A.

B. Insert Lock-Ball of turnbuckles into socket slots using the hole in spreader tubes. Rotate spreader tube to prevent Lock-Ball from withdrawing from slot. See Fig. 7 at B.



C. Insert Lock-Ball of open ends of (4) base cables into slots of base anchor collar sockets. See Fig. 8.

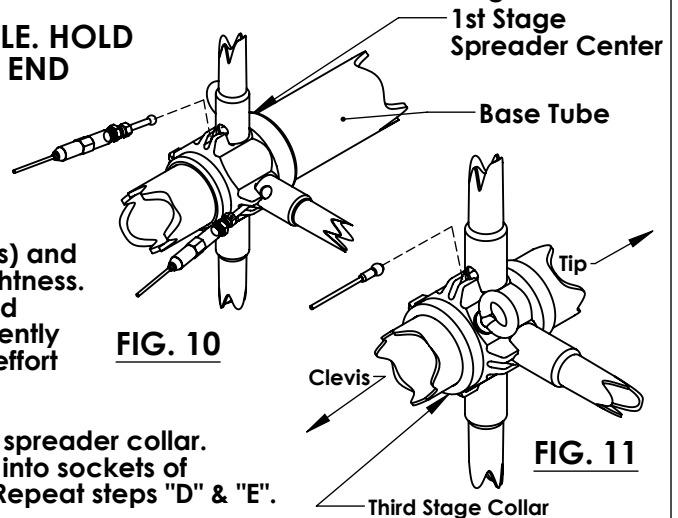


D. Stretch cables through slots in spreader tips and hand tighten turnbuckles to remove slack. See Fig. 9.

**CAUTION #1: DO NOT ROTATE BARREL OF TURNBUCKLE. HOLD BARREL WHILE TIGHTENING LOCK-BALL END**

**CAUTION #2: NOTICE THE OFFSET OF THE 2nd STAGE SPREADER. THIS IS DONE TO PREVENT SPREADER CABLES FROM CHAFFING.**

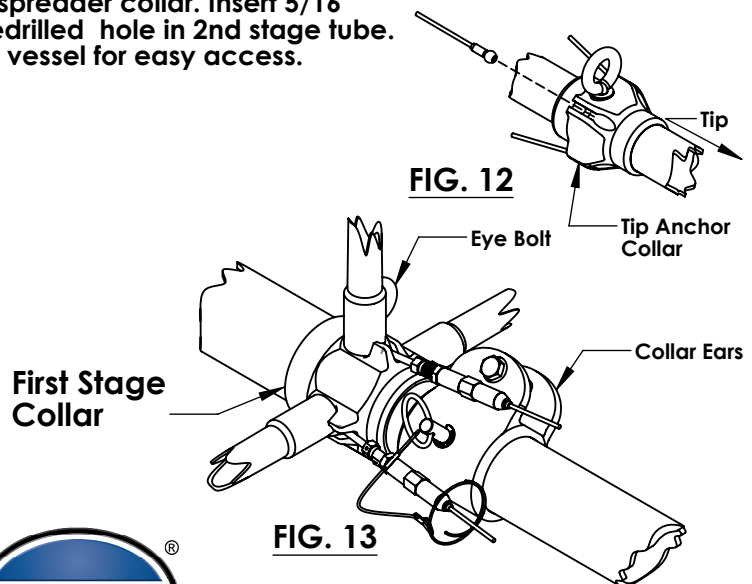
E. Place drop of Loc-Tite on turnbuckle threads (four locations) and tighten each turnbuckle three full turns and check for straightness. Adjust individual turnbuckles to correct bowing of tubes and continue tightening all around. Check for straightness frequently while tightening until all cables are equally tight and great effort is required to pull cable away from slots in spreader tips.

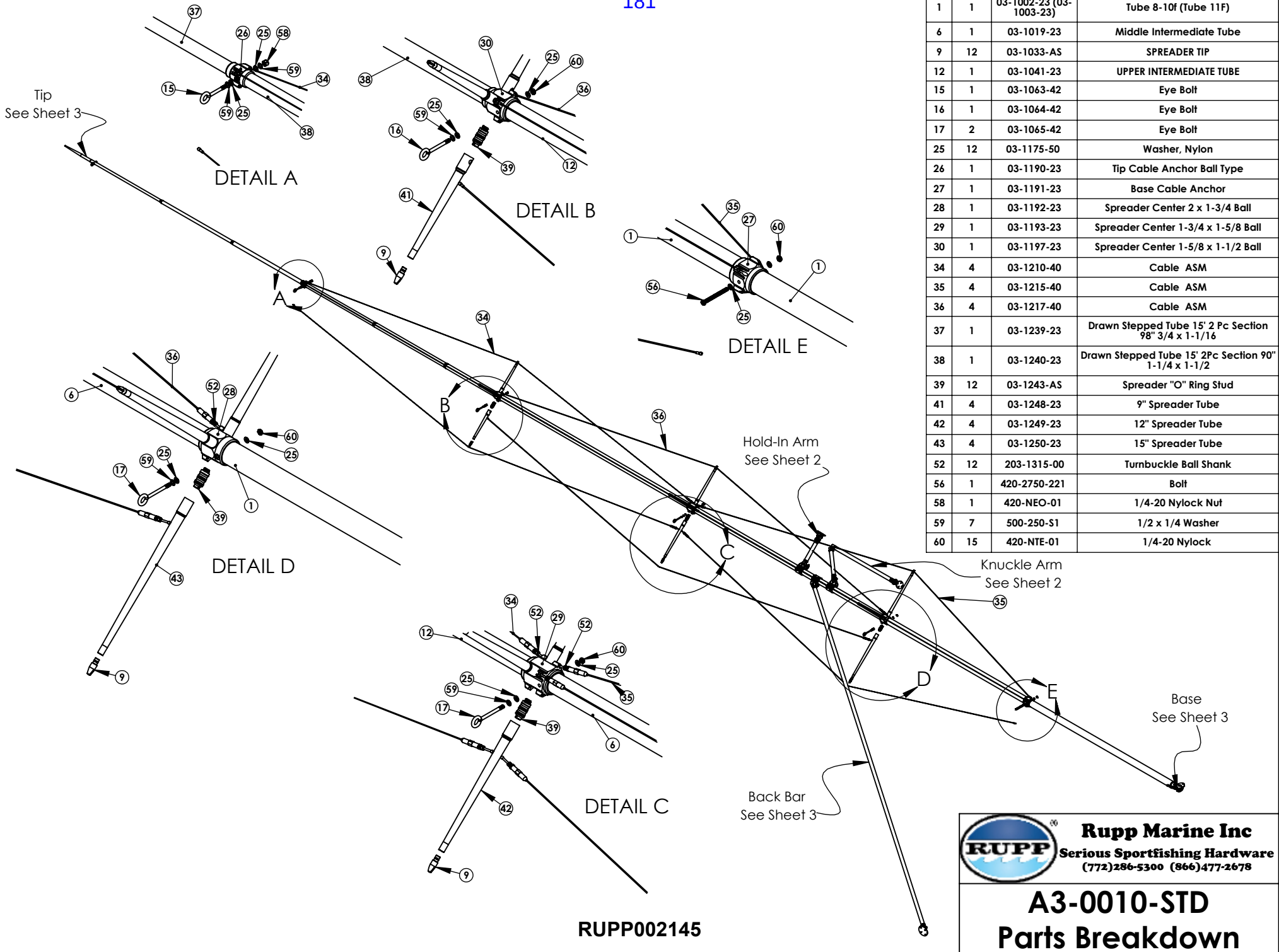


F. Align holes at base of spreader tubes with slots on 1st stage spreader collar. See fig. 10. Repeat "B" above. Insert Lock-Ball of open ends into sockets of 3rd stage spreader collar. (Align holes in tube) See Fig. 11. Repeat steps "D" & "E".

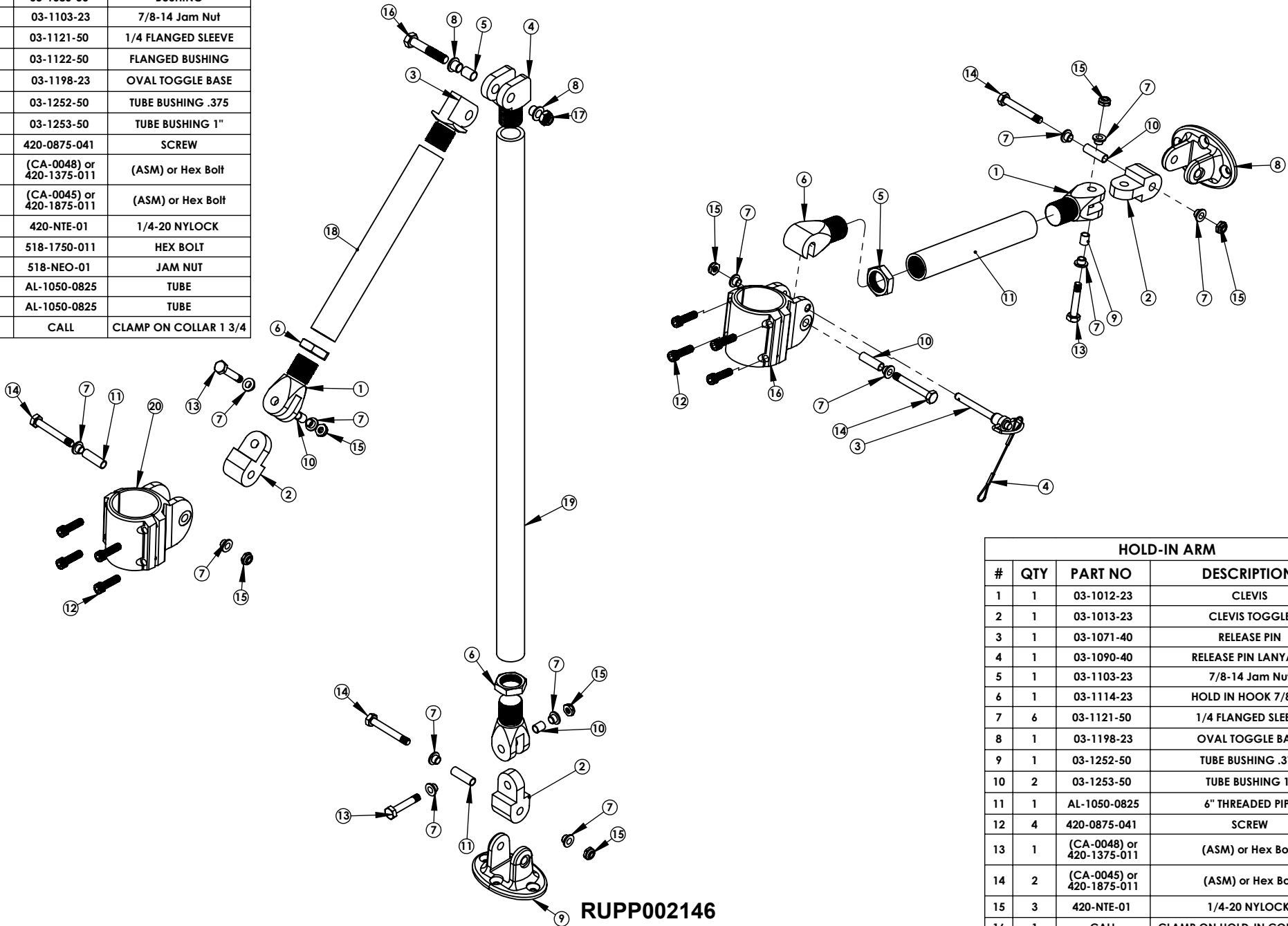
G. Align holes at base of spreader tubes with slots of sockets on tip end of second stage spreader. See Fig. 7 at A. Repeat "B" above. Insert Lock-Ball of open end into sockets of tip anchor collar. See Fig. 12. Repeat steps "D" & "E" above.

**15. Position back bar collar as shown in Fig.13 with the collar ears on the same side of tube as the eyebolt eye on the 1st stage spreader collar. Insert 5/16" quick release pin through holes in collar and predrilled hole in 2nd stage tube. Head of pin should be on the cockpit side of the vessel for easy access.**





KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



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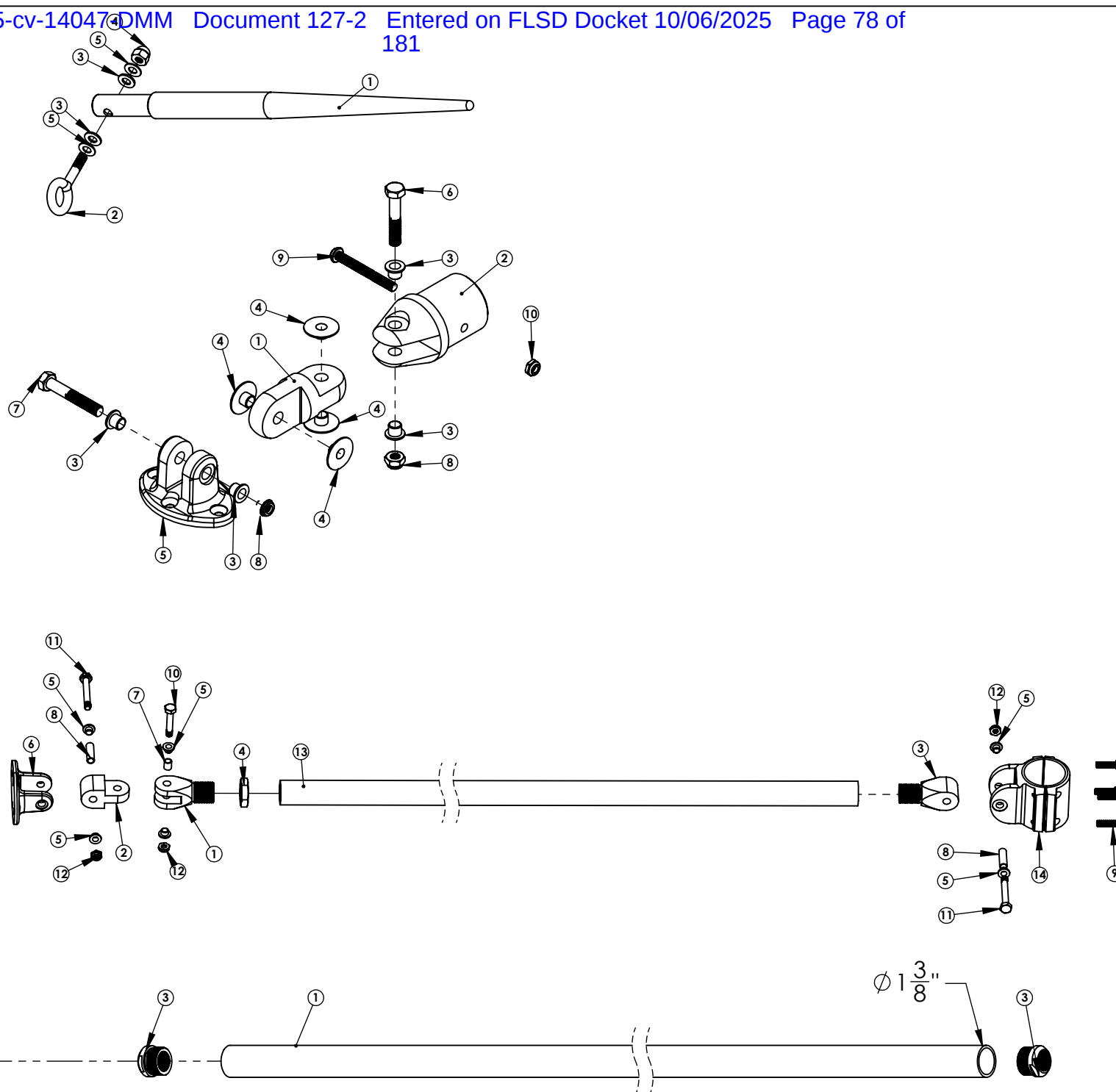
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

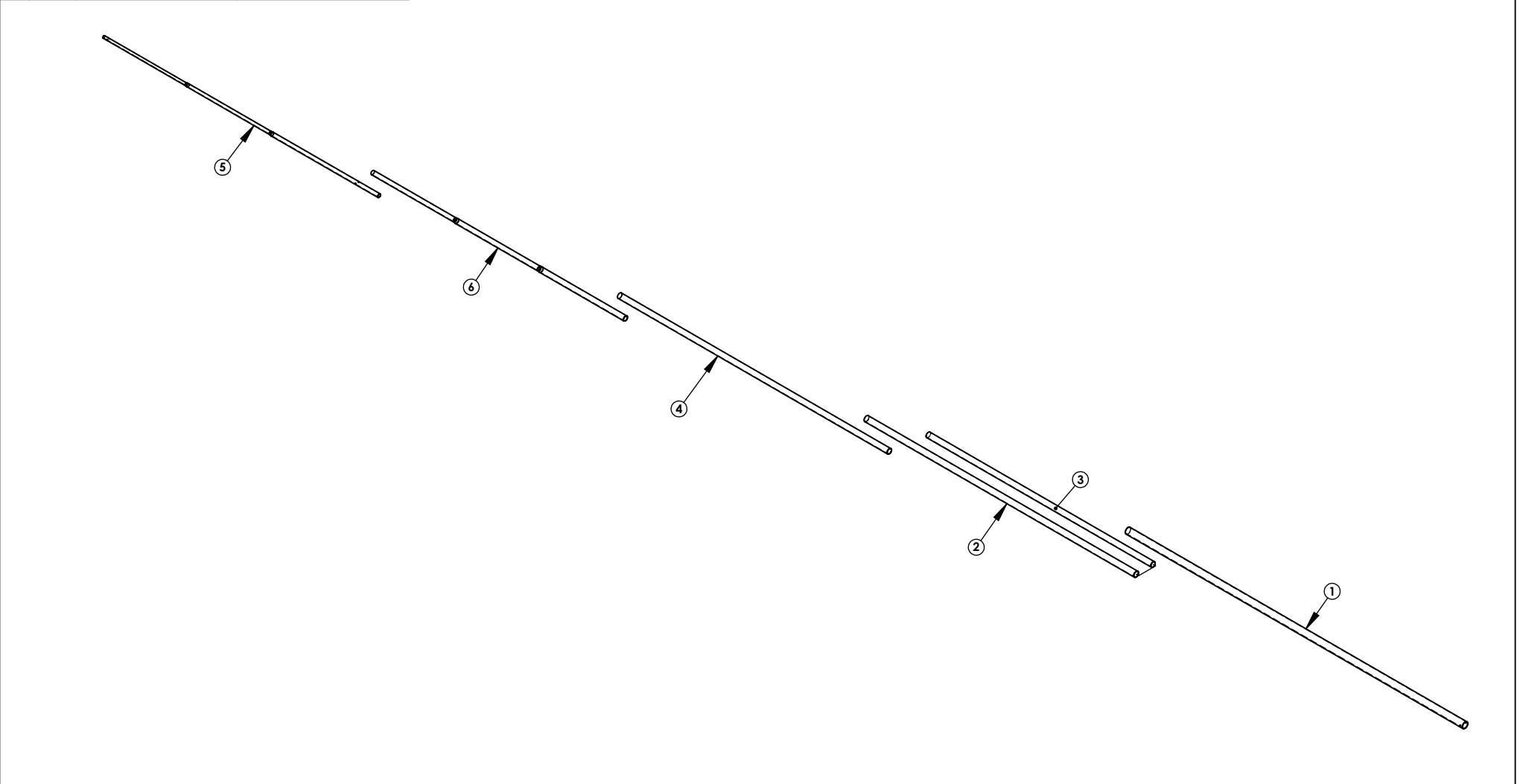
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



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#	QTY	Part No	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1019-23	Middle Intermediate Tube
3	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
4	1	03-1041-23	UPPER INTERMEDIATE TUBE
5	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
6	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2



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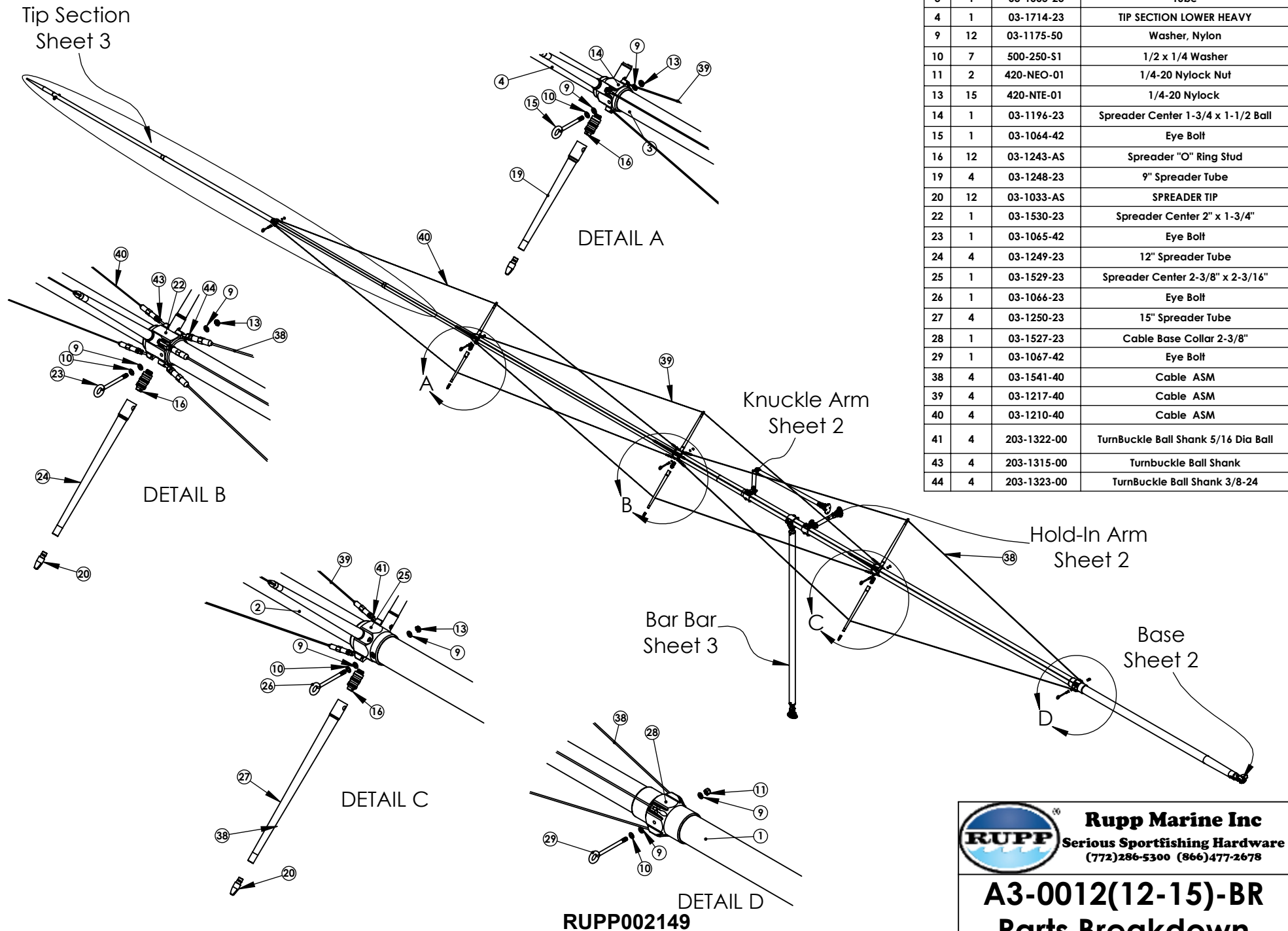
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**A3-0010-STD**

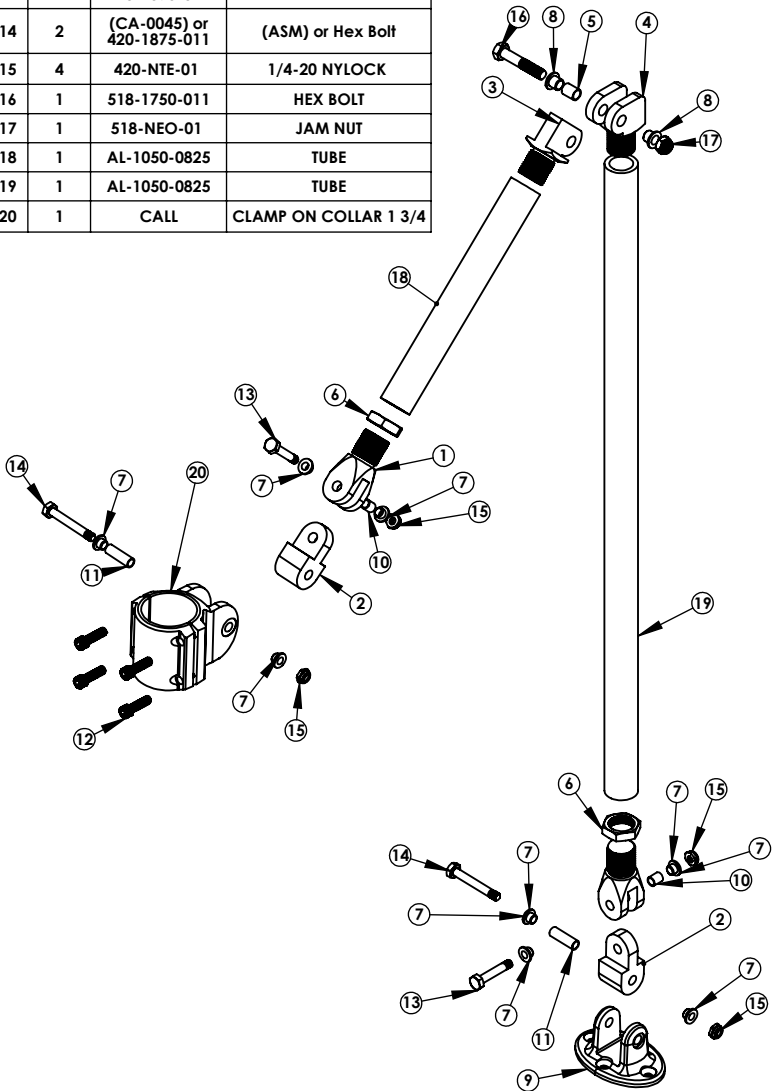
**Parts Breakdown**



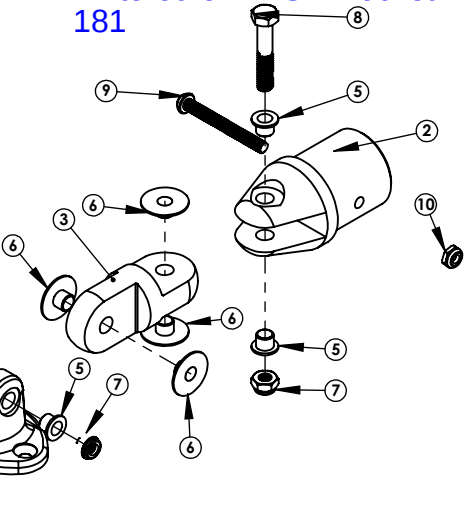




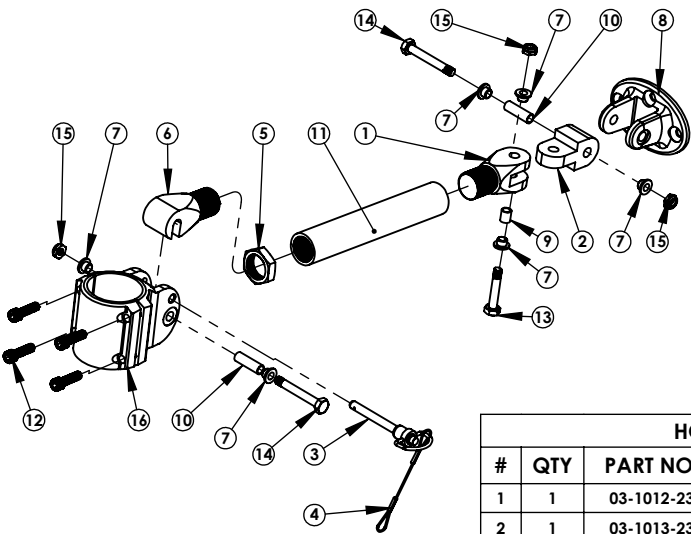
KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



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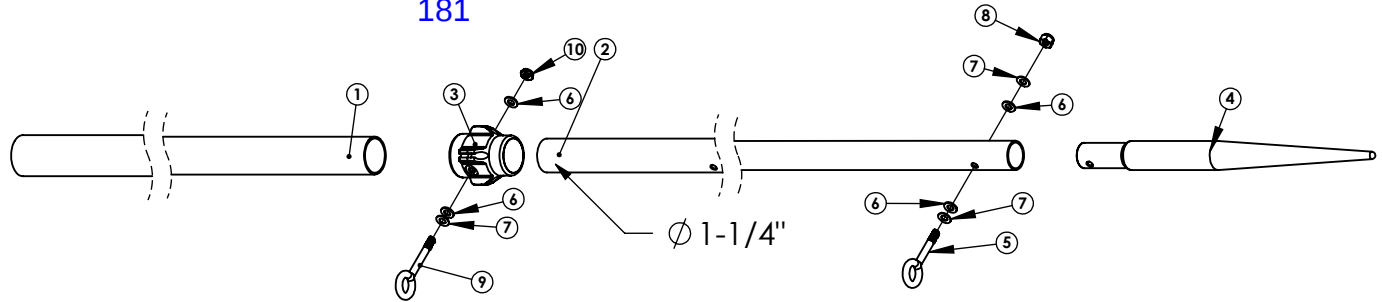


#	QTY	Part No	Description
1	1	03-1545-23	Oval Main Base
2	1	03-1037-23	Base Tube End 2"
3	1	03-1036-23	Base Toggle
4	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
5	4	03-1122-50	Flanged Bushing
6	4	03-1205-50	Base Toggle Bushing
7	2	518-NEO-01	Jam Nut
8	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
9	1	420-2250-221	Bolt
10	1	420-NTE-01	1/4-20 Nylock

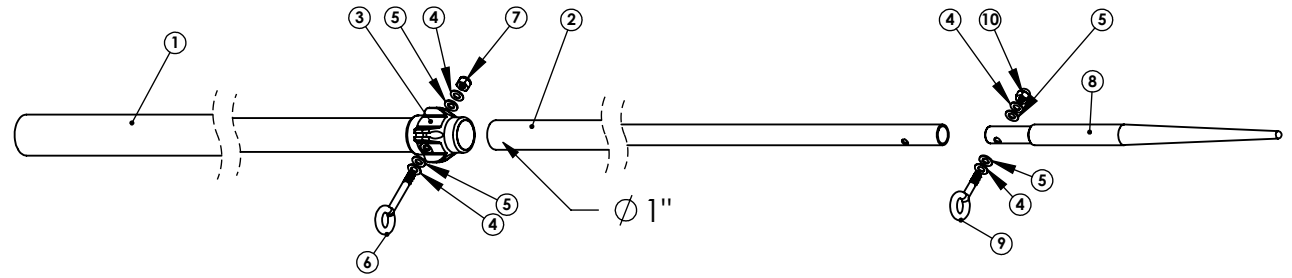


HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

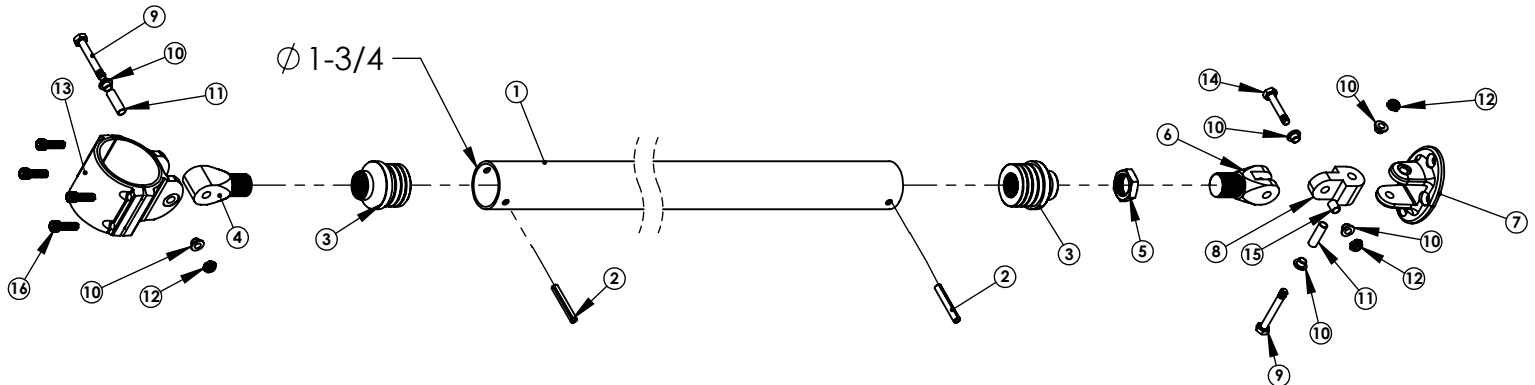
Heavy Tip Section			
#	QTY	Part No	Description
1	1	03-1714-23	TIP SECTION LOWER HEAVY
2	1	03-1715-23	TIP SECTION UPPER HEAVY
3	1	03-1717-23	TIP CABLE ANCHOR HEAVY
4	1	03-1716-23	TIP POINT/HEAVY
5	1	03-1062-42	Eye Bolt
6	4	03-1175-50	Washer, Nylon
7	3	500-250-S1	1/2 x 1/4 Washer
8	1	420-NEO-01	1/4-20 Nylock Nut
9	1	03-1063-42	Eye Bolt
10	1	420-NTE-01	1/4-20 Nylock



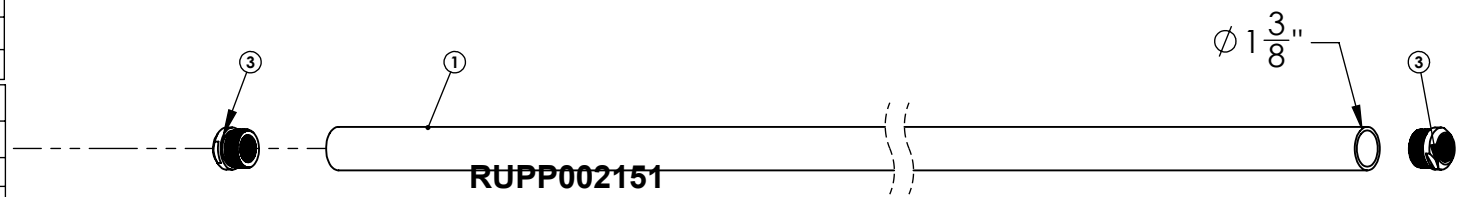
Std Tip Section			
#	QTY	Part No	Description
1	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
2	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
3	1	03-1190-23	Tip Cable Anchor Ball Type
4	4	500-250-S1	1/2 x 1/4 Washer
5	4	03-1175-50	Washer, Nylon
6	1	03-1063-42	Eye Bolt
7	1	420-NEO-01	1/4-20 Nylock Nut
8	1	03-1023-23	Tip Point
9	1	03-1061-42	Eye Bolt
10	1	420-CBO-00	Cap Nut



BR Back Bar			
#	QTY	Part No	Description
1	1	03-1553-23	Tube
2	2	03-1697-40	1/4" x 1 3/4" Spring Pin
3	2	03-1556-23	1-3/4 x 7/8 REDUCER
4	1	03-1022-23	Solid Clevis 7/8 x 14
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1012-23	Clevis
7	1	03-1198-23	Oval Toggle Base
8	1	03-1013-23	Clevis Toggle
9	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
10	6	03-1121-50	1/4 Flanged Sleeve
11	2	03-1253-50	Tube Bushing 1"
12	3	420-NTE-01	1/4-20 Nylock
13	1	Call	Clamp on Collar 2-3/8
14	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
15	1	03-1252-50	Tube Bushing .375
16	4	420-0875-041	Screw



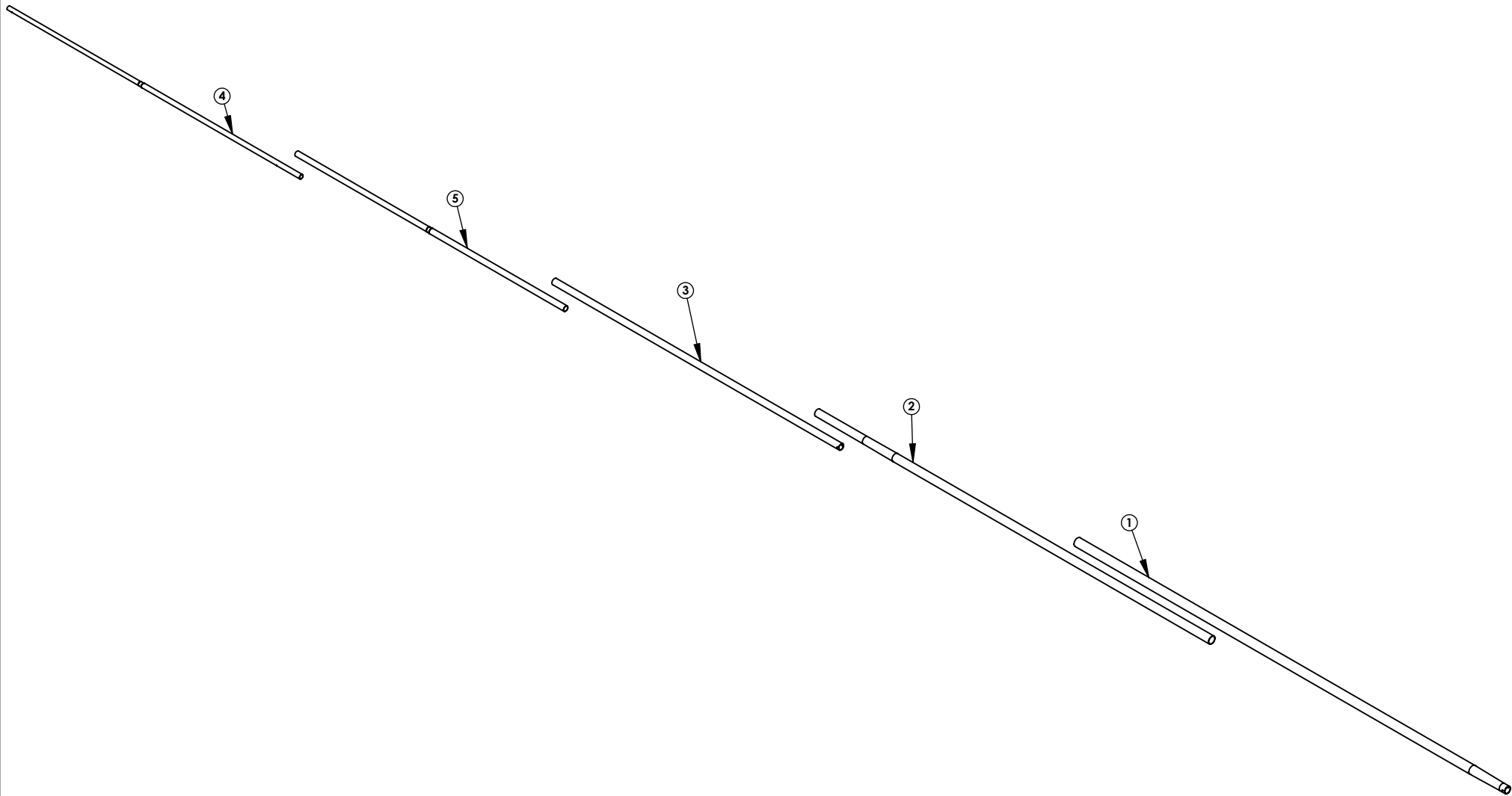
Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



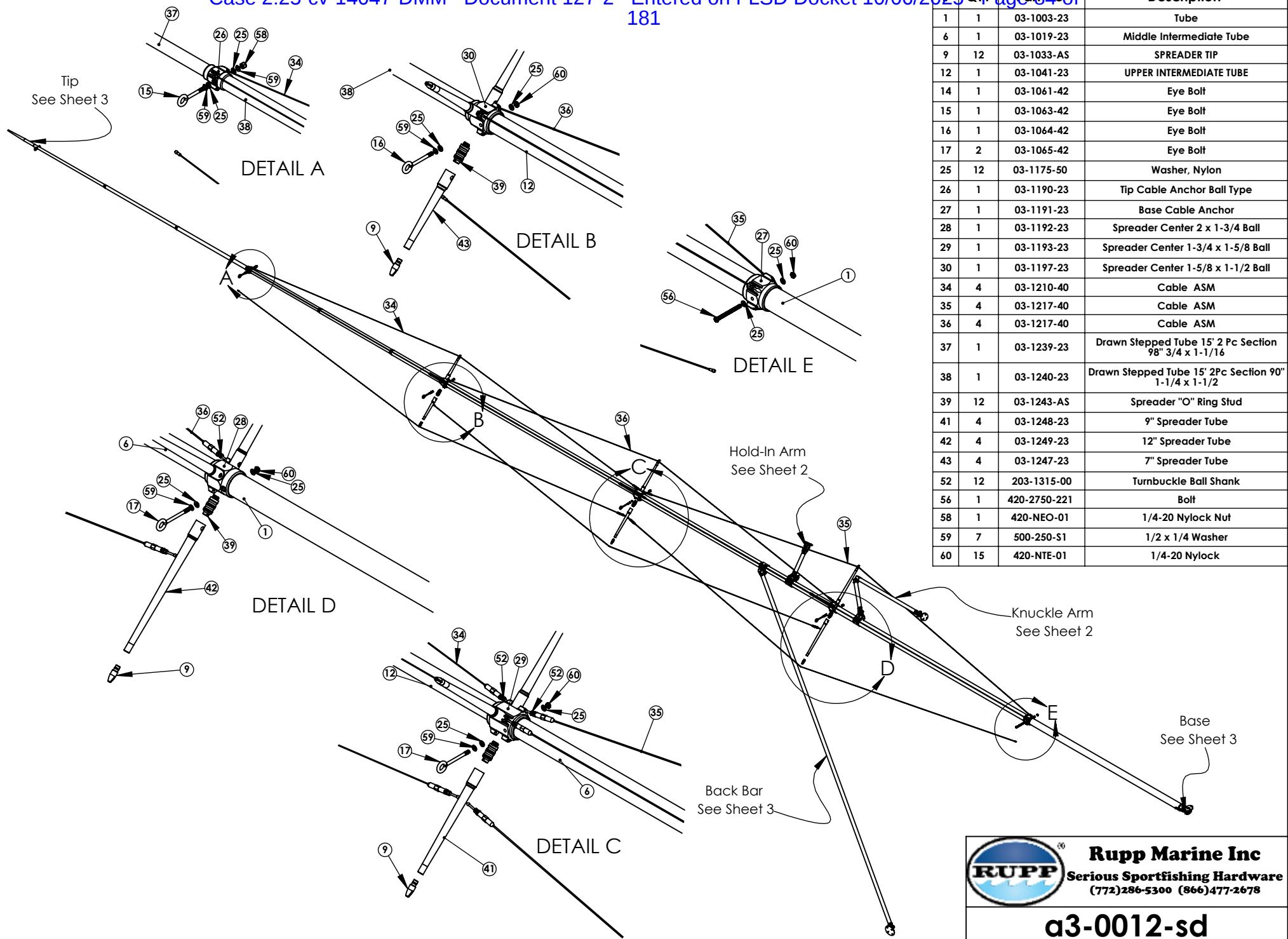
RUPP002151

Ø 1 3/8"

#	QTY	Part No	Description
1	1	03-1532-23	TAPERED BASE TUBE
2	1	03-1533-23	Tapered Intermediate Tube
3	1	03-1005-23	Tube
4	1	See Sheet 3	TIP SECTION UPPER HEAVY
5	1	See sheet 3	TIP SECTION LOWER HEAVY



RUPP002152

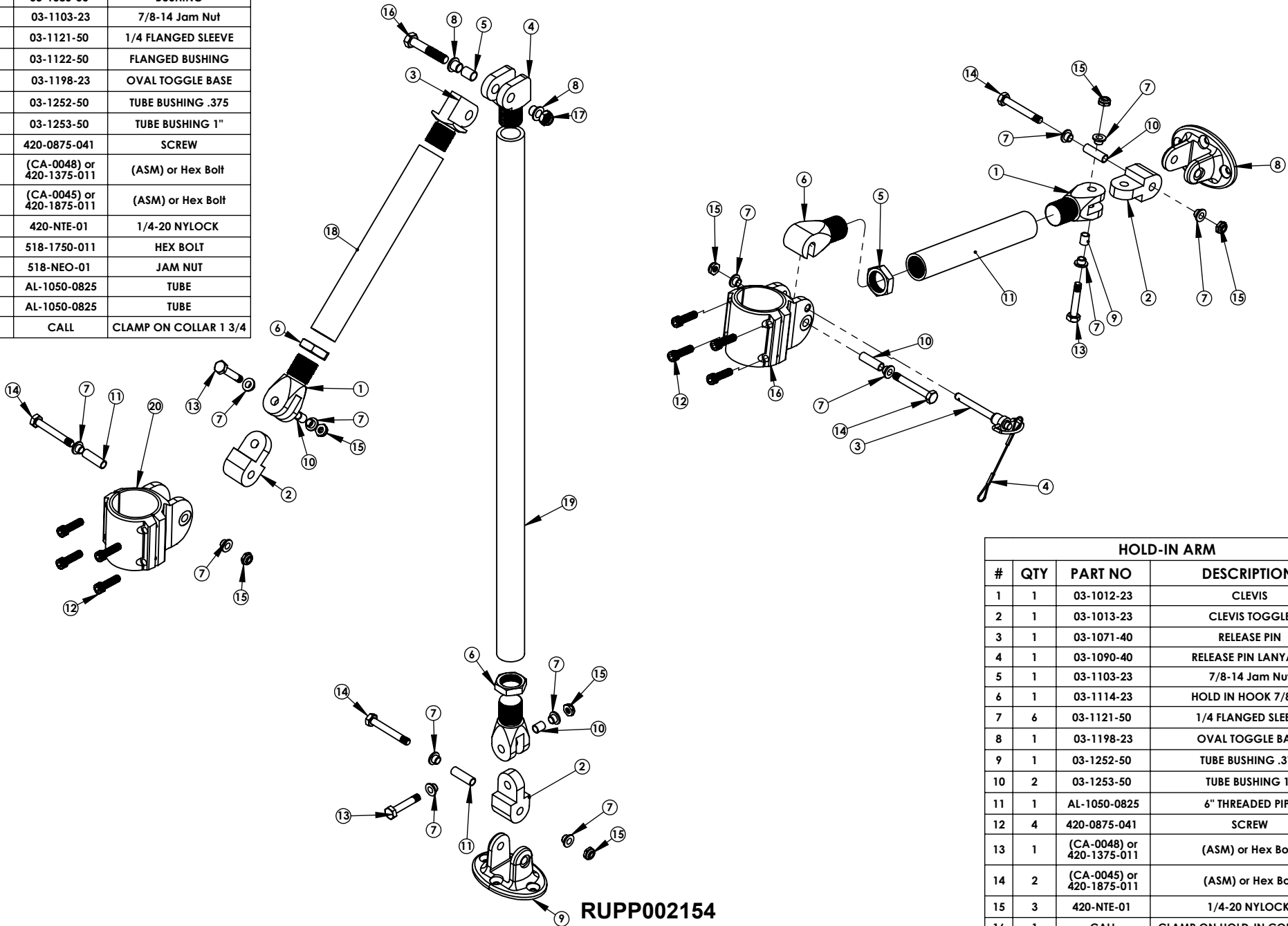


**RUPP002153**

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<p><b>a3-0012-sd</b>  <b>Parts Breakdown</b></p>	

Last Updated 12/11/2020 Sheet 1 of 4

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

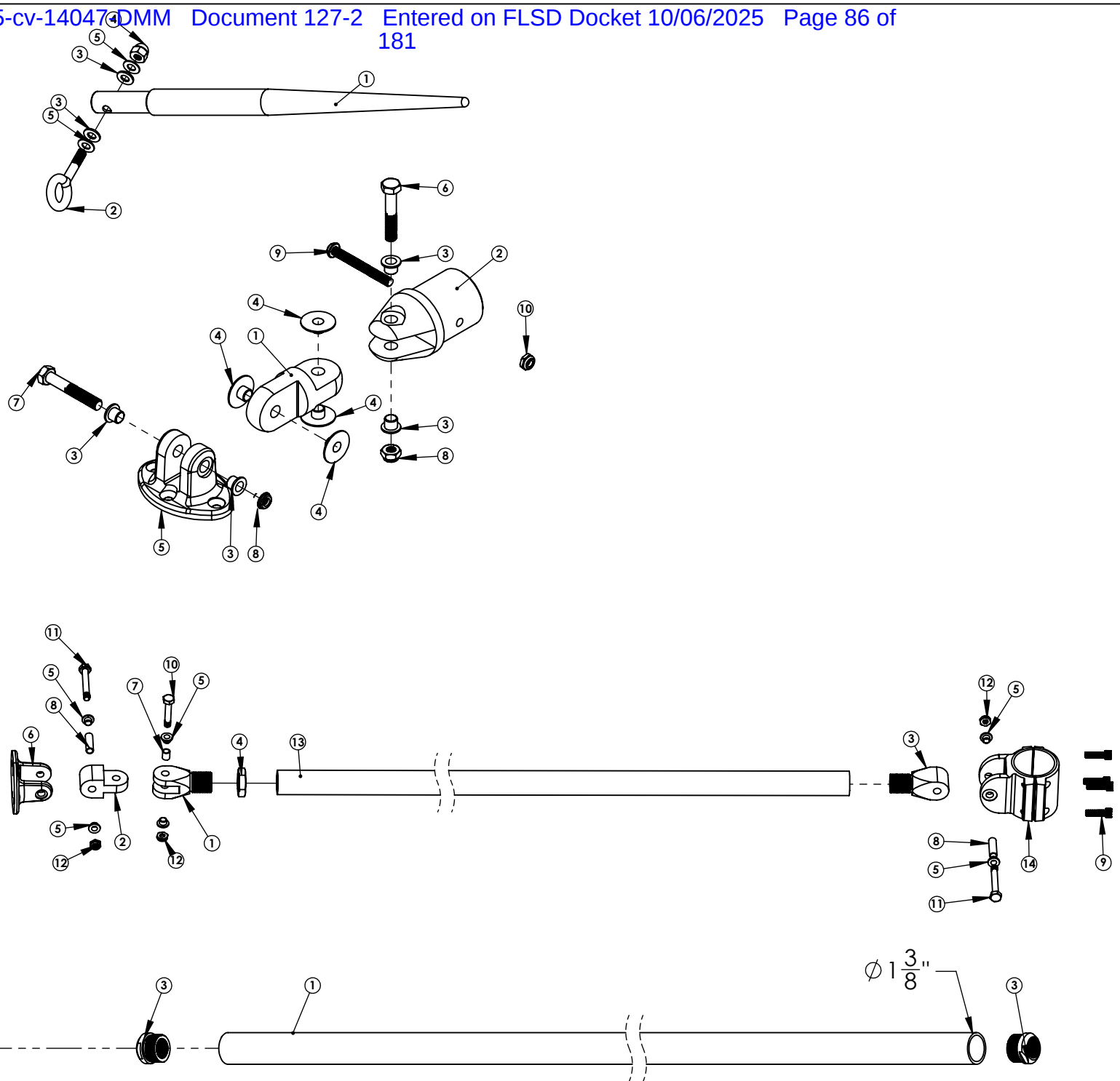
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TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

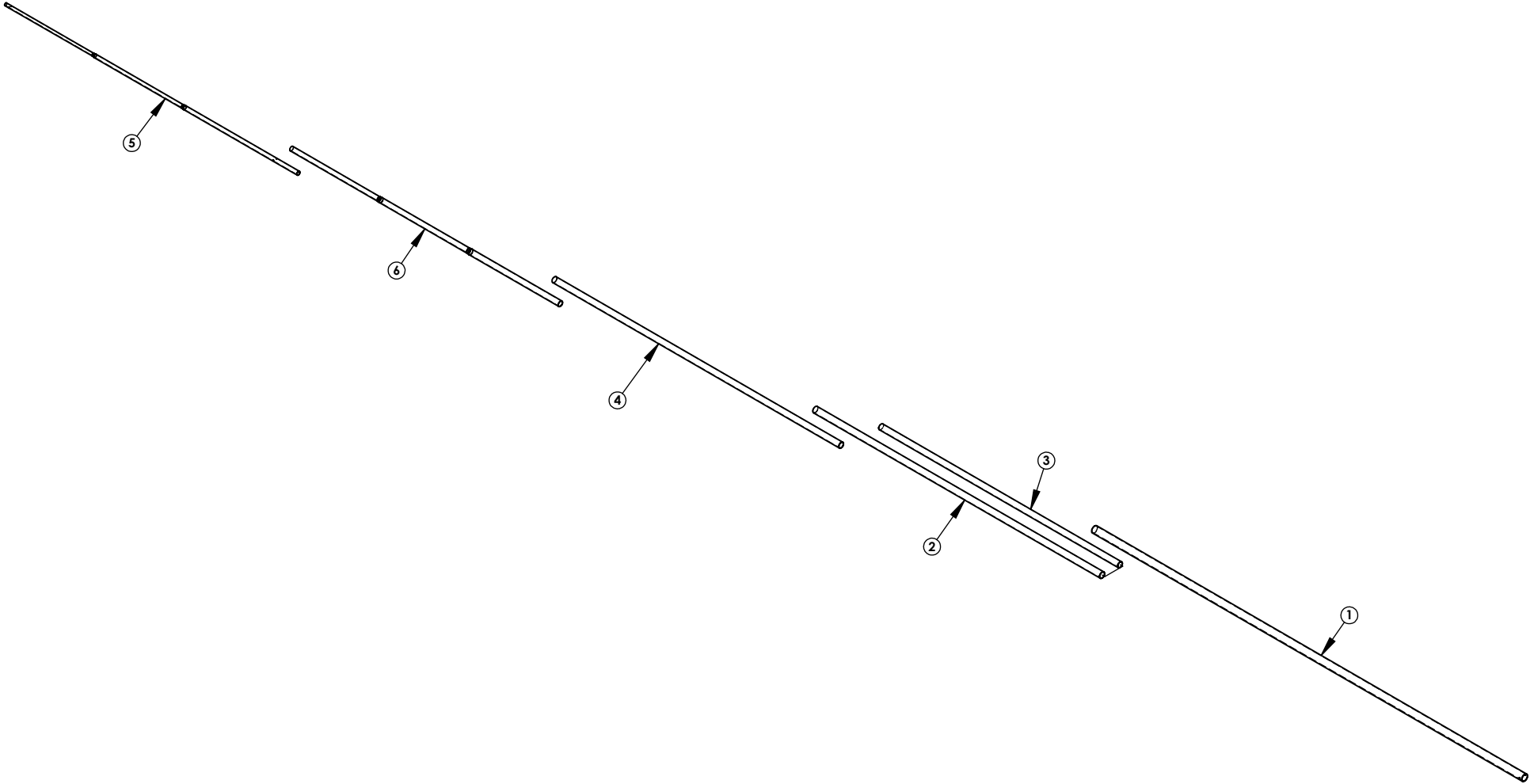
Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002155

Ø 1 3/8"

#	QTY	Part No	Description
1	1	03-1003-23	Tube
2	1	03-1019-23	Middle Intermediate Tube
3	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
4	1	03-1041-23	UPPER INTERMEDIATE TUBE
5	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
6	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2



RUPP002156



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**a3-0012-sd**  
**Parts Breakdown**

Tip  
See Sheet 3

DETAIL A

DETAIL B

DETAIL E

DETAIL D

DETAIL C

Hold-In Arm  
See Sheet 2

Knuckle Arm  
See Sheet 2

Base  
See Sheet 3

Back Bar  
See Sheet 3

RUPP002157

#	QTY	Part No.	Description
1	1	03-1003-23	Tube
6	1	03-1020-23	1.75 OD x 1.640 ID x 80 Drawn Tube
9	12	03-1033-AS	SPREADER TIP
12	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
14	1	03-1061-42	Eye Bolt
15	1	03-1063-42	Eye Bolt
16	1	03-1064-42	Eye Bolt
17	2	03-1065-42	Eye Bolt
25	12	03-1175-50	Washer, Nylon
26	1	03-1190-23	Tip Cable Anchor Ball Type
27	1	03-1191-23	Base Cable Anchor
28	1	03-1192-23	Spreader Center 2 x 1-3/4 Ball
29	1	03-1193-23	Spreader Center 1-3/4 x 1-5/8 Ball
30	1	03-1197-23	Spreader Center 1-5/8 x 1-1/2 Ball
34	4	03-1212-40	Cable ASM
35	4	03-1215-40	Cable ASM
36	4	03-1548-40	Cable ASM
37	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
38	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
39	12	03-1243-AS	Spreader "O" Ring Stud
41	4	03-1248-23	9" Spreader Tube
42	4	03-1249-23	12" Spreader Tube
43	4	03-1247-23	7" Spreader Tube
52	12	203-1315-00	Turnbuckle Ball Shank
56	1	420-2750-221	Bolt
58	1	420-NEO-01	1/4-20 Nylock Nut
59	7	500-250-S1	1/2 x 1/4 Washer
60	15	420-NTE-01	1/4-20 Nylock

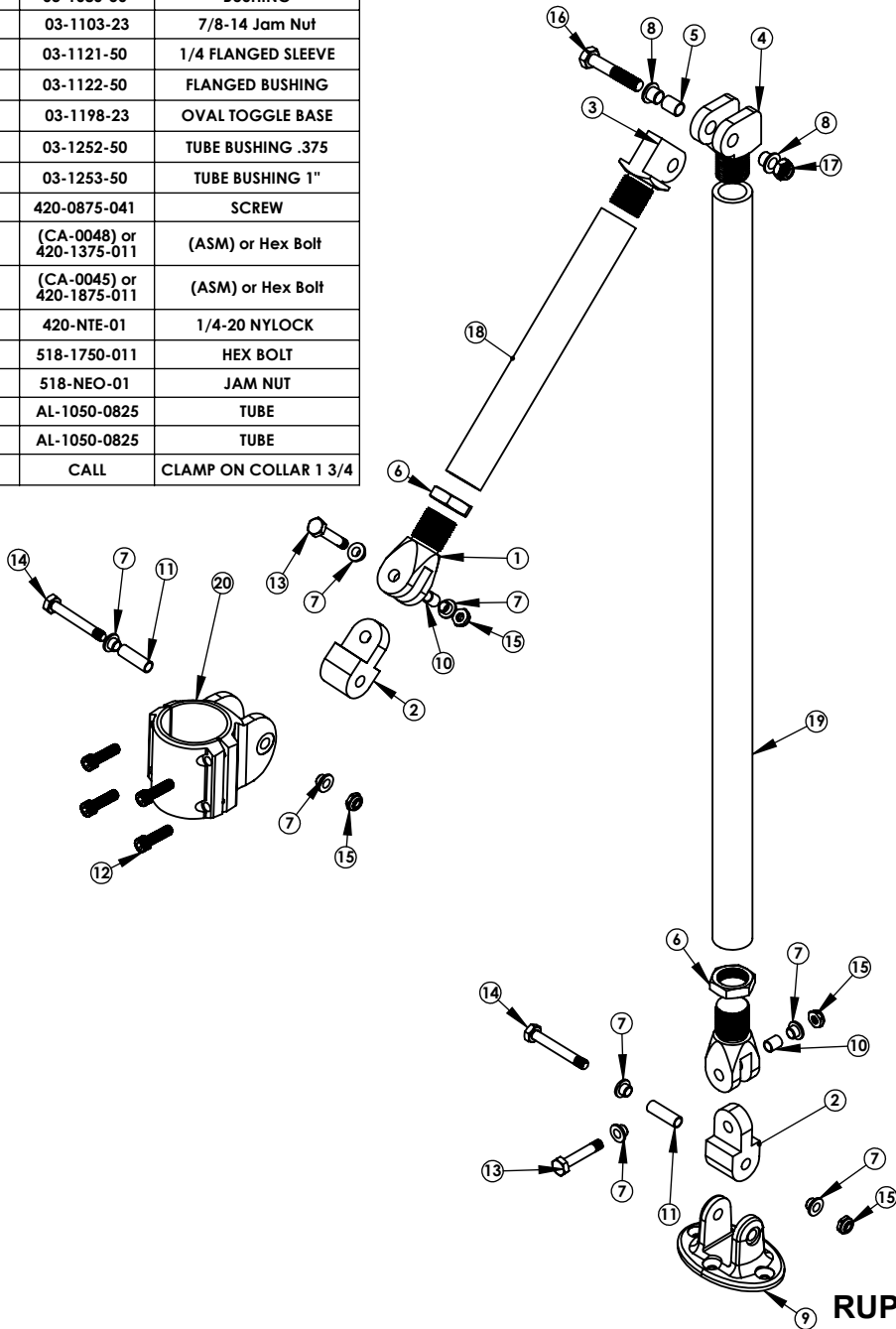


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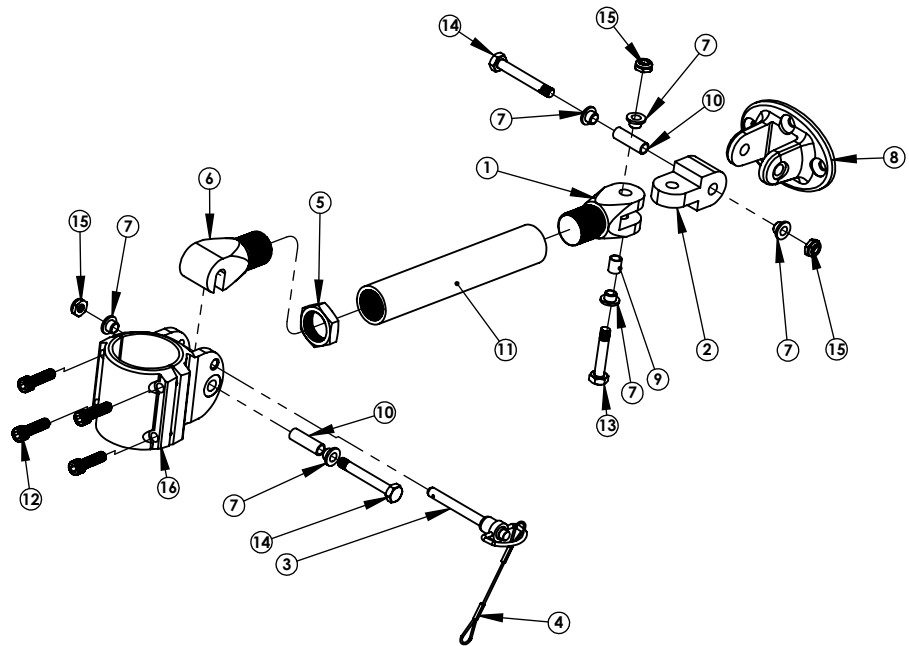
**a3-0012-spl**  
**Parts Breakdown**



KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



RUPP002158



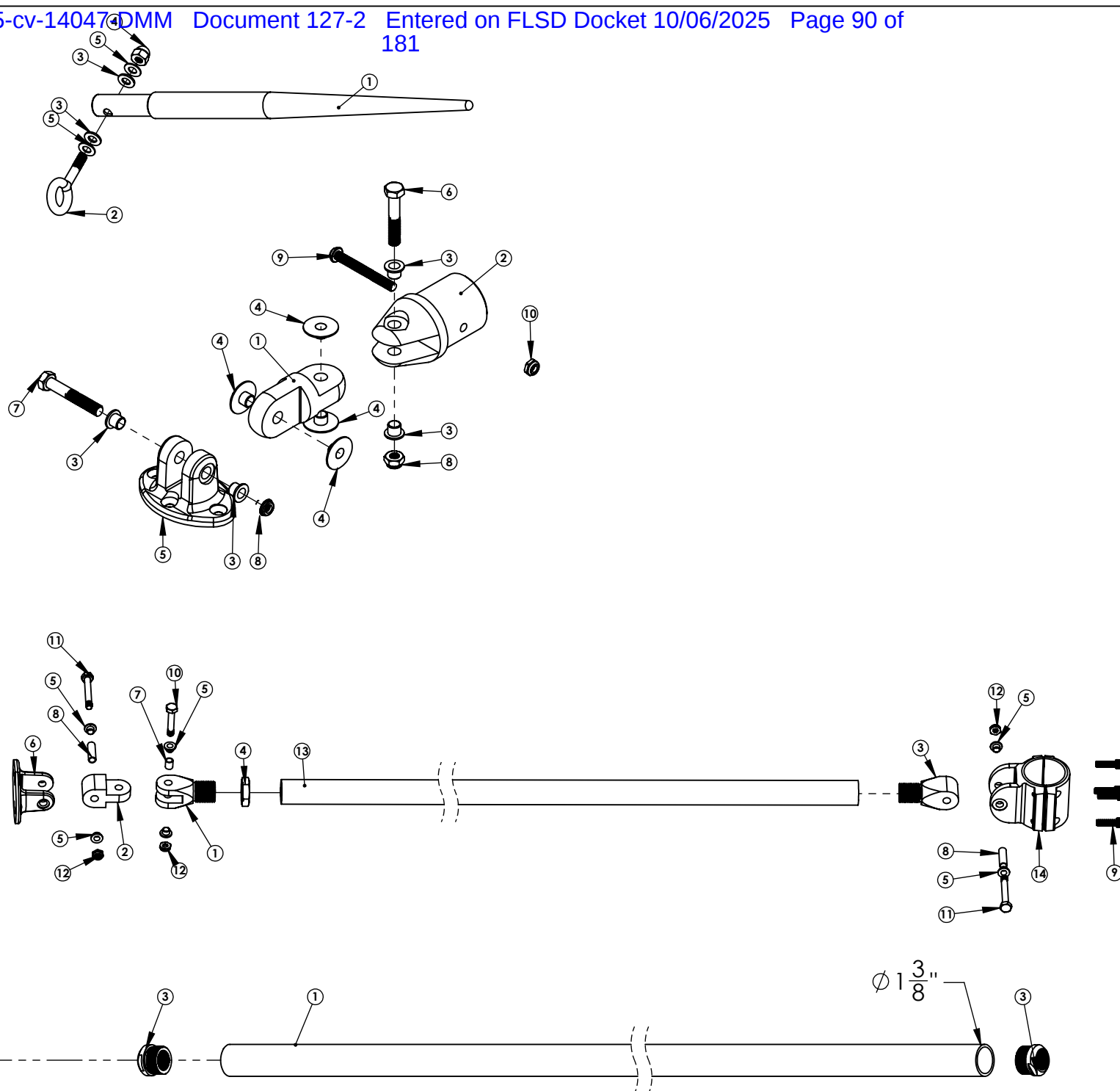
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

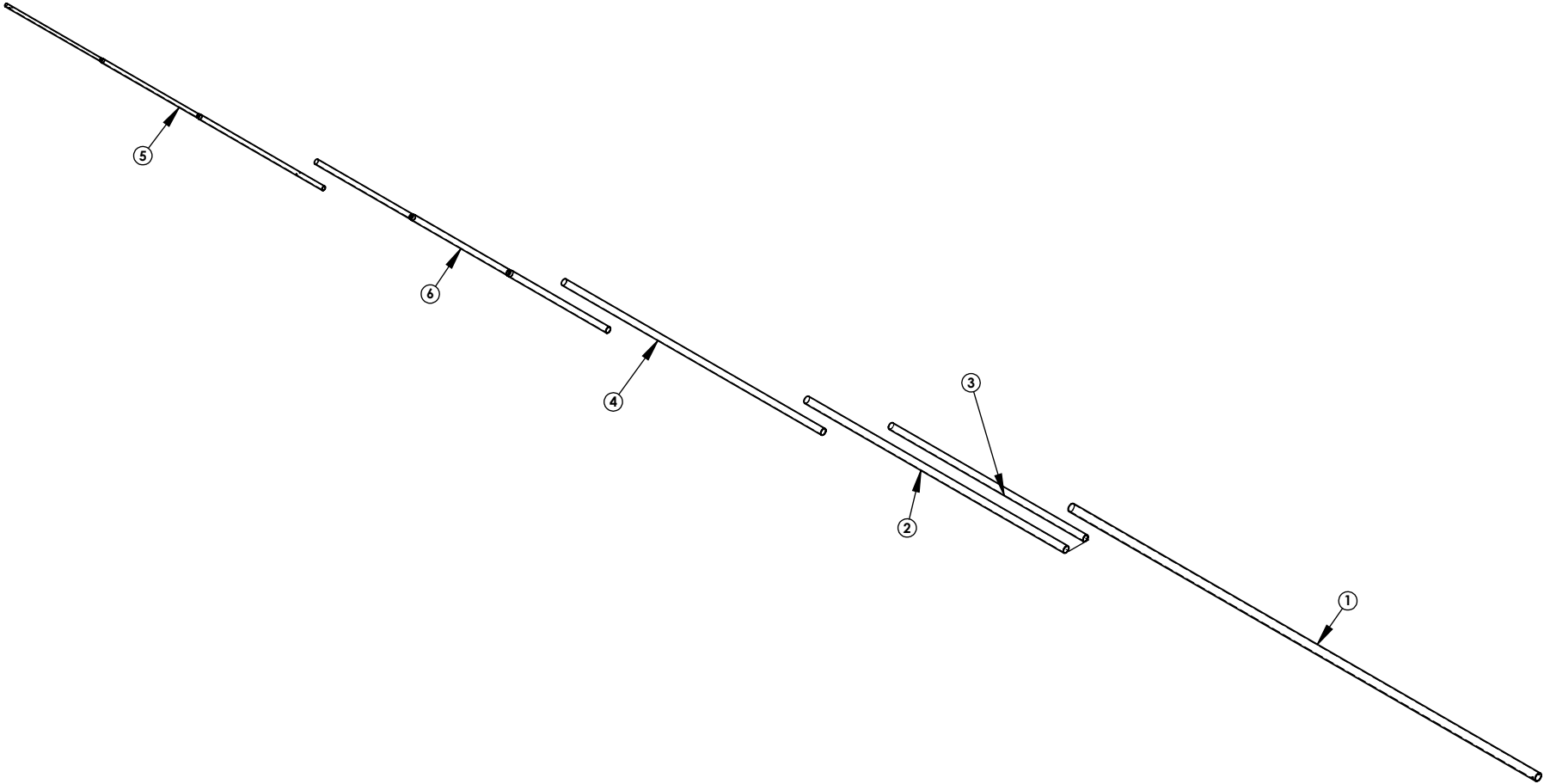
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



RUPP002159

#	QTY	Part No	Description
1	1	03-1003-23	Tube
2	1	03-1020-23	1.75 OD x 1.640 ID x 80 Drawn Tube
3	1	03-1045-23	1.625 OD x 1.515 ID x 60 Drawn Tube
4	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
5	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
6	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2



RUPP002160



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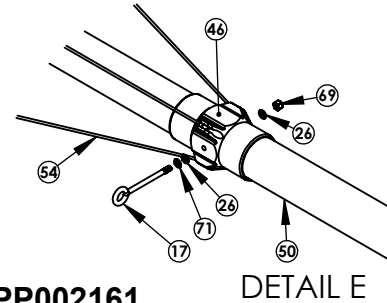
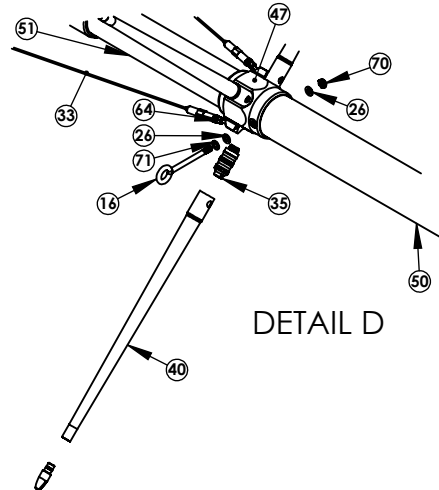
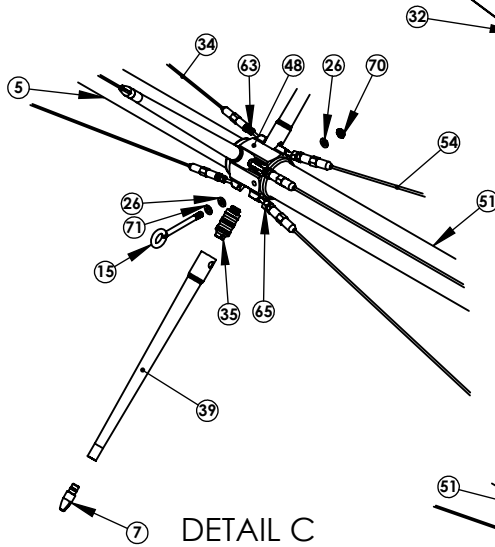
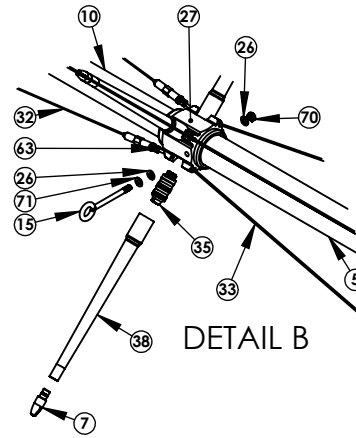
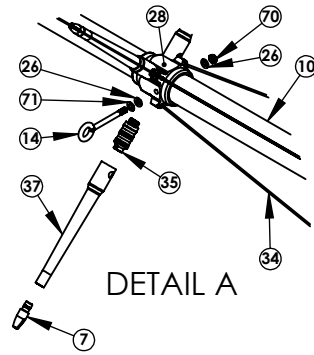
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a3-0012-spl

Parts Breakdown

Tip Section  
Sheet 3



Knuckle Arm  
Sheet 2

Hold-In Arm  
Sheet 2

Base  
Sheet 2

Back Bar  
Sheet 3

#	QTY	Part No.	Description
5	1	03-1019-23	Middle Intermediate Tube
7	16	03-1033-AS	SPREADER TIP
10	1	03-1041-23	UPPER INTERMEDIATE TUBE
14	1	03-1064-42	Eye Bolt
15	2	03-1065-42	Eye Bolt
16	1	03-1066-23	Eye Bolt
17	1	03-1067-42	Eye Bolt
26	14	03-1175-50	Washer, Nylon
27	1	03-1193-23	Spreader Center 1-3/4 x 1-5/8 Ball
28	1	03-1197-23	Spreader Center 1-5/8 x 1-1/2 Ball
32	4	03-1210-40	Cable ASM
33	4	03-1217-40	Cable ASM
34	4	03-1217-40	Cable ASM
35	16	03-1243-AS	Spreader "O" Ring Stud
37	4	03-1247-23	7" Spreader Tube
38	4	03-1248-23	9" Spreader Tube
39	4	03-1249-23	12" Spreader Tube
40	4	03-1250-23	15" Spreader Tube
46	1	03-1527-23	Cable Base Collar 2-3/8"
47	1	03-1529-23	Spreader Center 2-3/8" x 2-3/16"
48	1	03-1530-23	Spreader Center 2" x 1-3/4"
50	1	03-1532-23	TAPERED BASE TUBE
51	1	03-1533-23	Tapered Intermediate Tube
54	4	03-1542-40	Cable ASM
63	8	203-1315-00	Turnbuckle Ball Shank
64	4	203-1322-00	TurnBuckle Ball Shank 5/16 Dia Ball
65	4	203-1323-00	TurnBuckle Ball Shank 3/8-24
69	2	420-NEO-01	1/4-20 Nylock Nut
70	16	420-NTE-01	1/4-20 Nylock
71	8	500-250-S1	1/2 x 1/4 Washer

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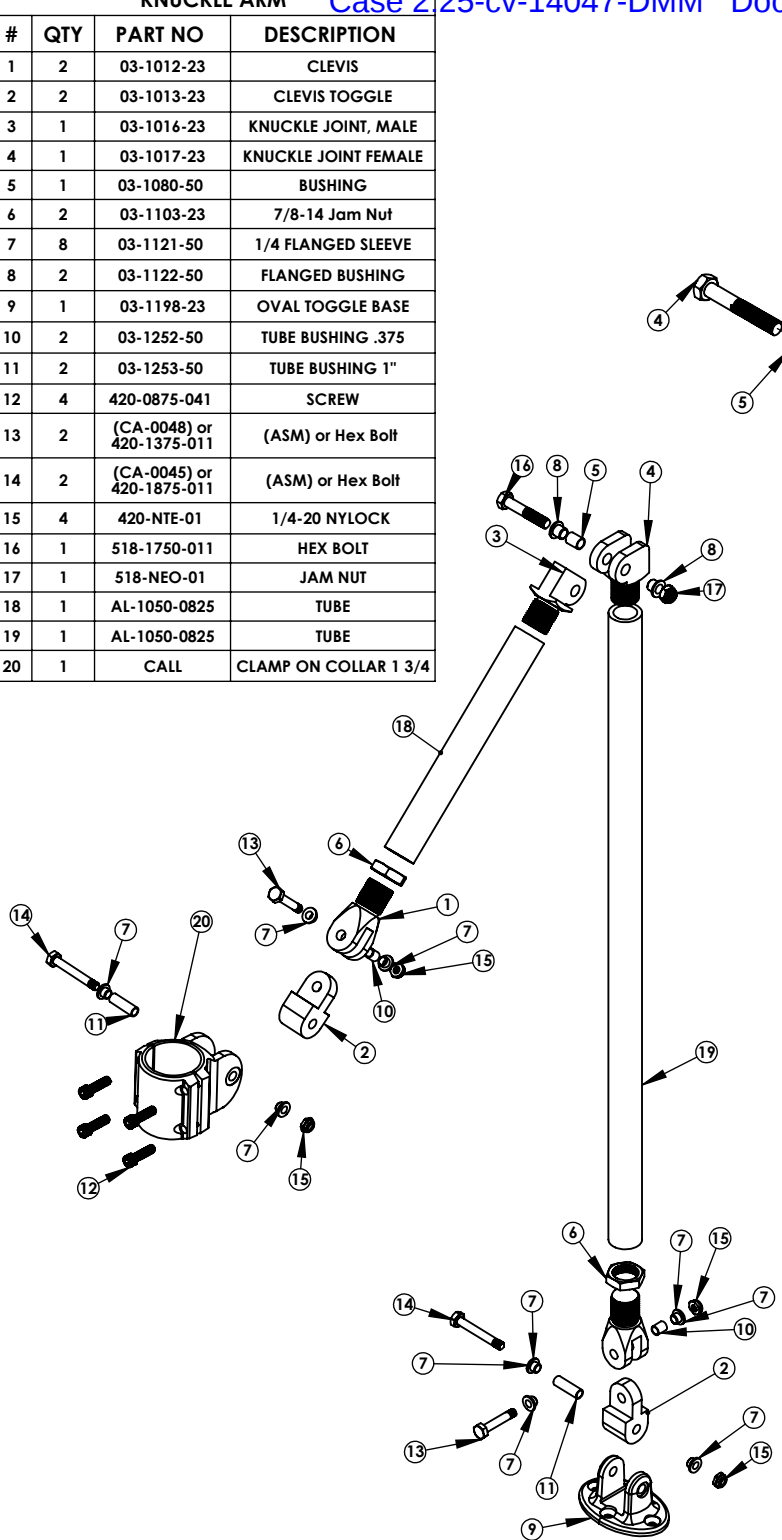
DETAIL E



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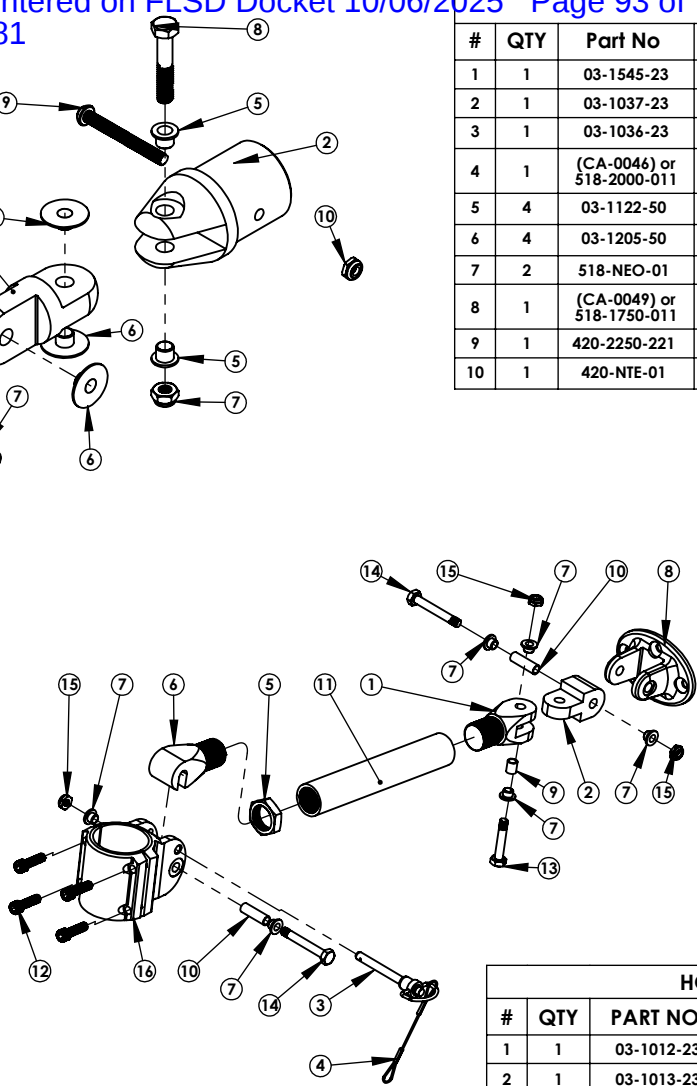
**A4-0010(9-11)-BR**  
**Parts Breakdown**

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



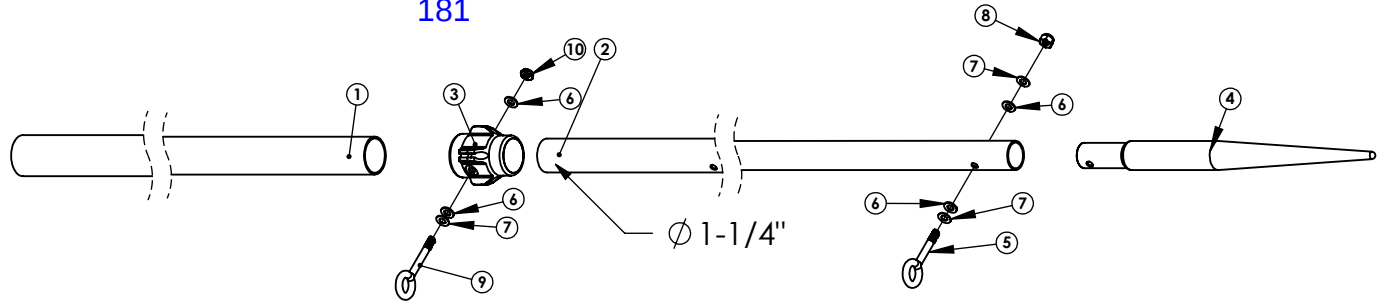
RUPP002162

Base			
#	QTY	Part No	Description
1	1	03-1545-23	Oval Main Base
2	1	03-1037-23	Base Tube End 2"
3	1	03-1036-23	Base Toggle
4	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
5	4	03-1122-50	Flanged Bushing
6	4	03-1205-50	Base Toggle Bushing
7	2	518-NEO-01	Jam Nut
8	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
9	1	420-2250-221	Bolt
10	1	420-NTE-01	1/4-20 Nylock

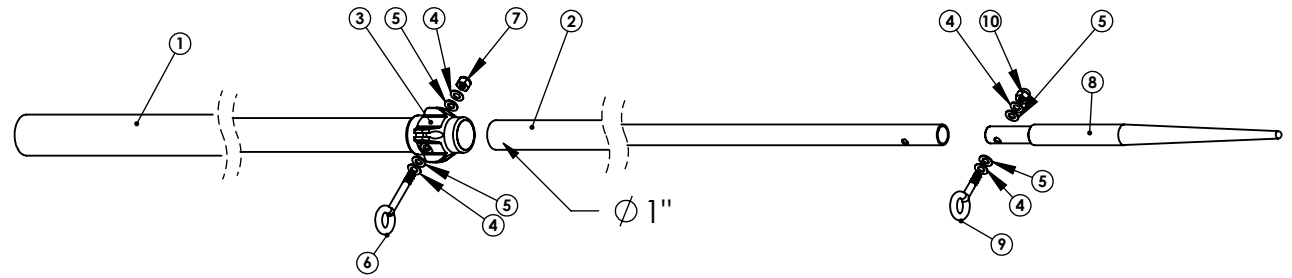


HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

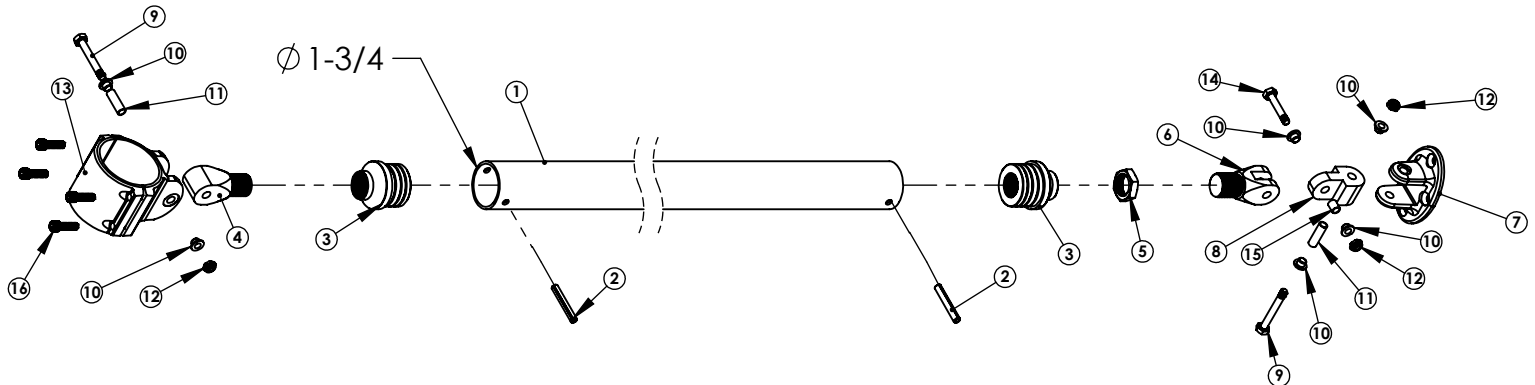
Heavy Tip Section			
#	QTY	Part No	Description
1	1	03-1714-23	TIP SECTION LOWER HEAVY
2	1	03-1715-23	TIP SECTION UPPER HEAVY
3	1	03-1717-23	TIP CABLE ANCHOR HEAVY
4	1	03-1716-23	TIP POINT/HEAVY
5	1	03-1062-42	Eye Bolt
6	4	03-1175-50	Washer, Nylon
7	3	500-250-S1	1/2 x 1/4 Washer
8	1	420-NEO-01	1/4-20 Nylock Nut
9	1	03-1063-42	Eye Bolt
10	1	420-NTE-01	1/4-20 Nylock



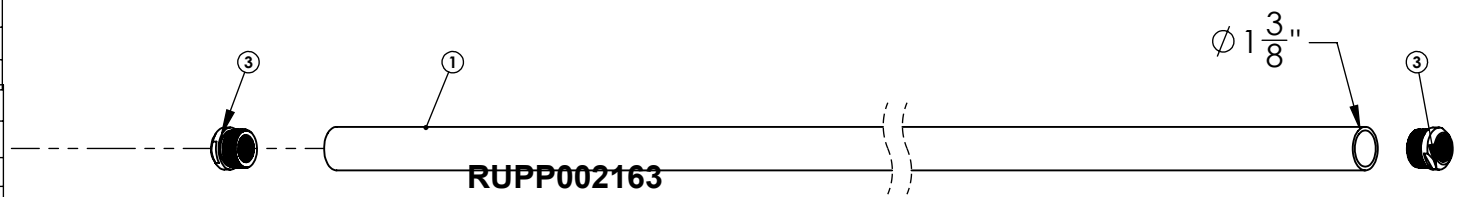
Std Tip Section			
#	QTY	Part No	Description
1	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
2	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
3	1	03-1190-23	Tip Cable Anchor Ball Type
4	4	500-250-S1	1/2 x 1/4 Washer
5	4	03-1175-50	Washer, Nylon
6	1	03-1063-42	Eye Bolt
7	1	420-NEO-01	1/4-20 Nylock Nut
8	1	03-1023-23	Tip Point
9	1	03-1061-42	Eye Bolt
10	1	420-CBO-00	Cap Nut



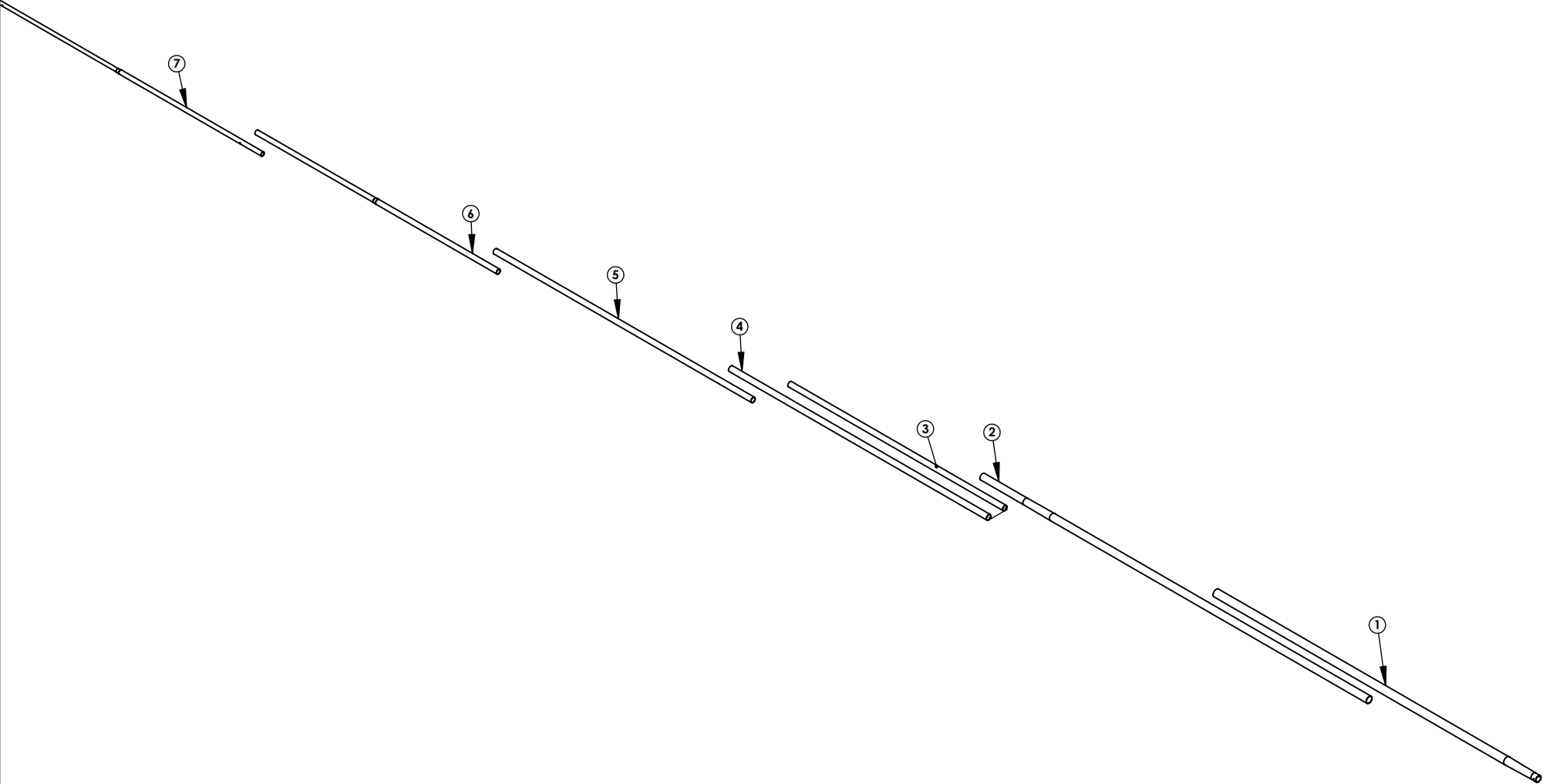
BR Back Bar			
#	QTY	Part No	Description
1	1	03-1553-23	Tube
2	2	03-1697-40	1/4" x 1 3/4" Spring Pin
3	2	03-1556-23	1-3/4 x 7/8 REDUCER
4	1	03-1022-23	Solid Clevis 7/8 x 14
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1012-23	Clevis
7	1	03-1198-23	Oval Toggle Base
8	1	03-1013-23	Clevis Toggle
9	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
10	6	03-1121-50	1/4 Flanged Sleeve
11	2	03-1253-50	Tube Bushing 1"
12	3	420-NTE-01	1/4-20 Nylock
13	1	Call	Clamp on Collar 2-3/8
14	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
15	1	03-1252-50	Tube Bushing .375
16	4	420-0875-041	Screw



Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer

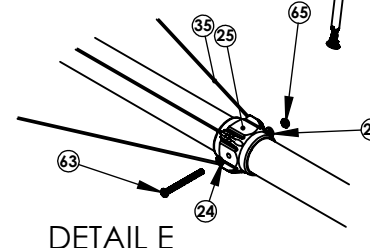
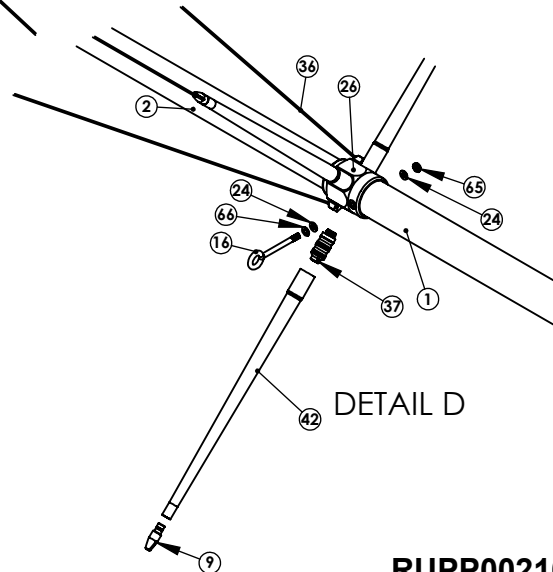
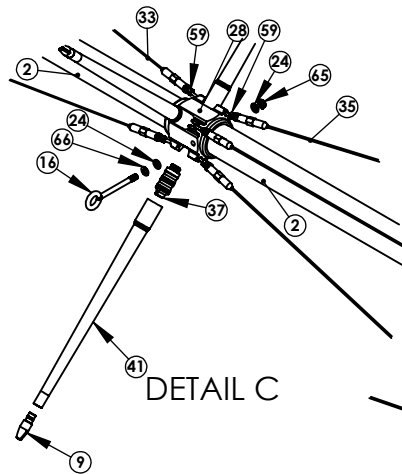
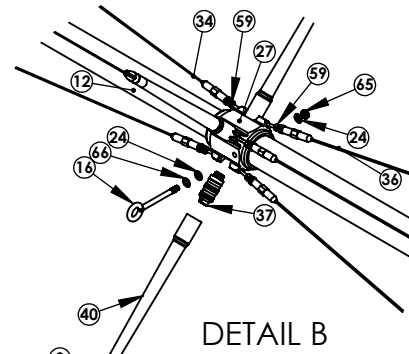
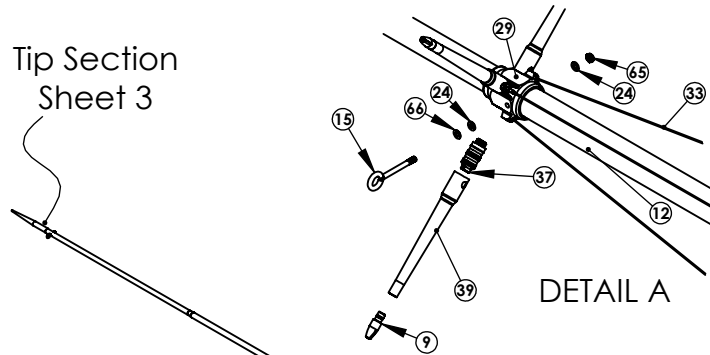


#	QTY	Part No	Description
1	1	03-1532-23	TAPERED BASE TUBE
2	1	03-1533-23	Tapered Intermediate Tube
3	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
4	1	03-1019-23	Middle Intermediate Tube
5	1	03-1041-23	UPPER INTERMEDIATE TUBE
6	1	03-1714-23	TIP SECTION LOWER HEAVY
7	1	03-1715-23	TIP SECTION UPPER HEAVY



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Tip Section  
Sheet 3



Knuckle Arm  
Sheet 2

Hold-In Arm  
Sheet 2

Base  
Sheet 3

Back Bar  
Sheet 3

#	QTY	Part No.	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
2	1	03-1010-23	1.75 x 1.625 x 20' Tube
9	16	03-1033-AS	SPREADER TIP
12	1	03-1041-23	UPPER INTERMEDIATE TUBE
15	1	03-1064-42	Eye Bolt
16	3	03-1065-42	Eye Bolt
24	14	03-1175-50	Washer, Nylon
25	1	03-1191-23	Base Cable Anchor
26	1	03-1192-23	Spreader Center 2 x 1-3/4 Ball
27	1	03-1193-23	Spreader Center 1-3/4 x 1-5/8 Ball
28	1	03-1193-23Mod	Spreader Center 1-3/4 x 1-3/4 Ball
29	1	03-1197-23	Spreader Center 1-5/8 x 1-1/2 Ball
33	4	03-1210-40	Cable ASM
34	4	03-1210-40	Cable ASM
35	4	03-1215-40	Cable ASM
36	4	03-1217-40	Cable ASM
37	16	03-1243-AS	Spreader "O" Ring Stud
39	4	03-1247-23	7" Spreader Tube
40	4	03-1248-23	9" Spreader Tube
41	4	03-1249-23	12" Spreader Tube
42	4	03-1250-23	15" Spreader Tube
59	16	203-1315-00	Turnbuckle Ball Shank
63	1	420-2750-221	Bolt
65	17	420-NTE-01	1/4-20 Nylock
66	7	500-250-S1	1/2 x 1/4 Washer
72	1	420-2250-221	Bolt
73	1	518-1750-011	Hex bolt

RUPP002165

DETAIL E

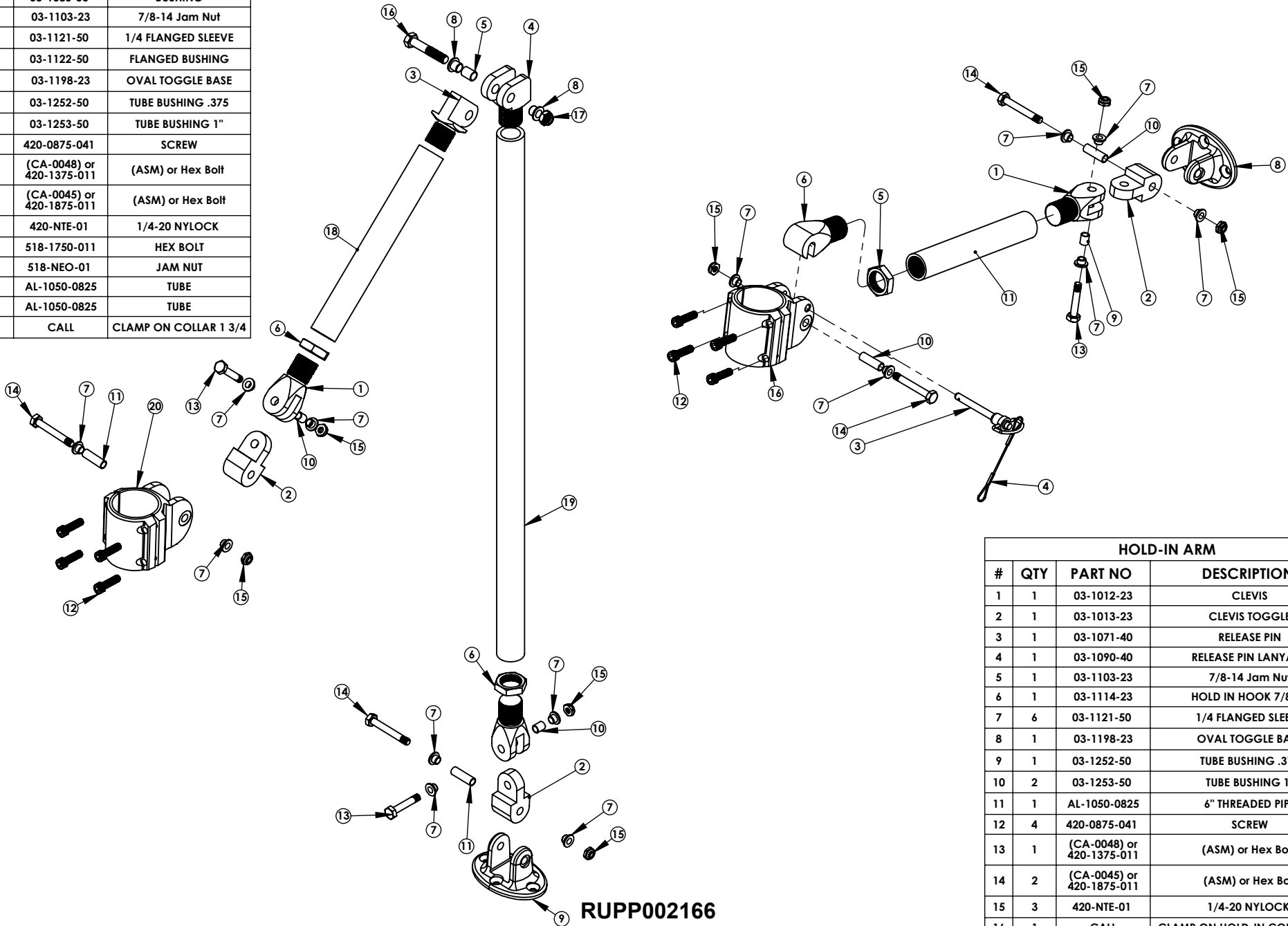


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**A4-0010-STD**  
**Parts Breakdown**



KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



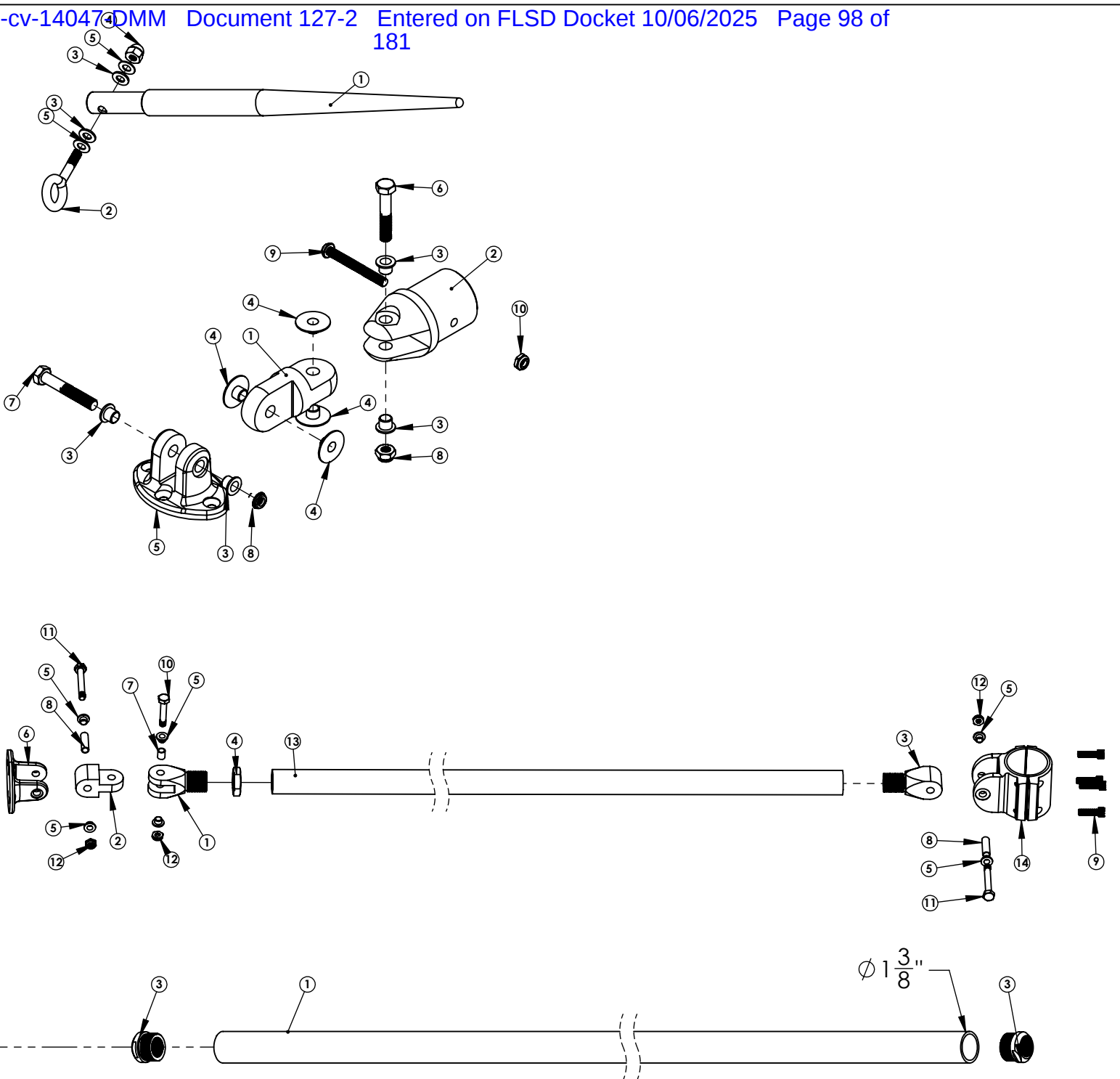
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

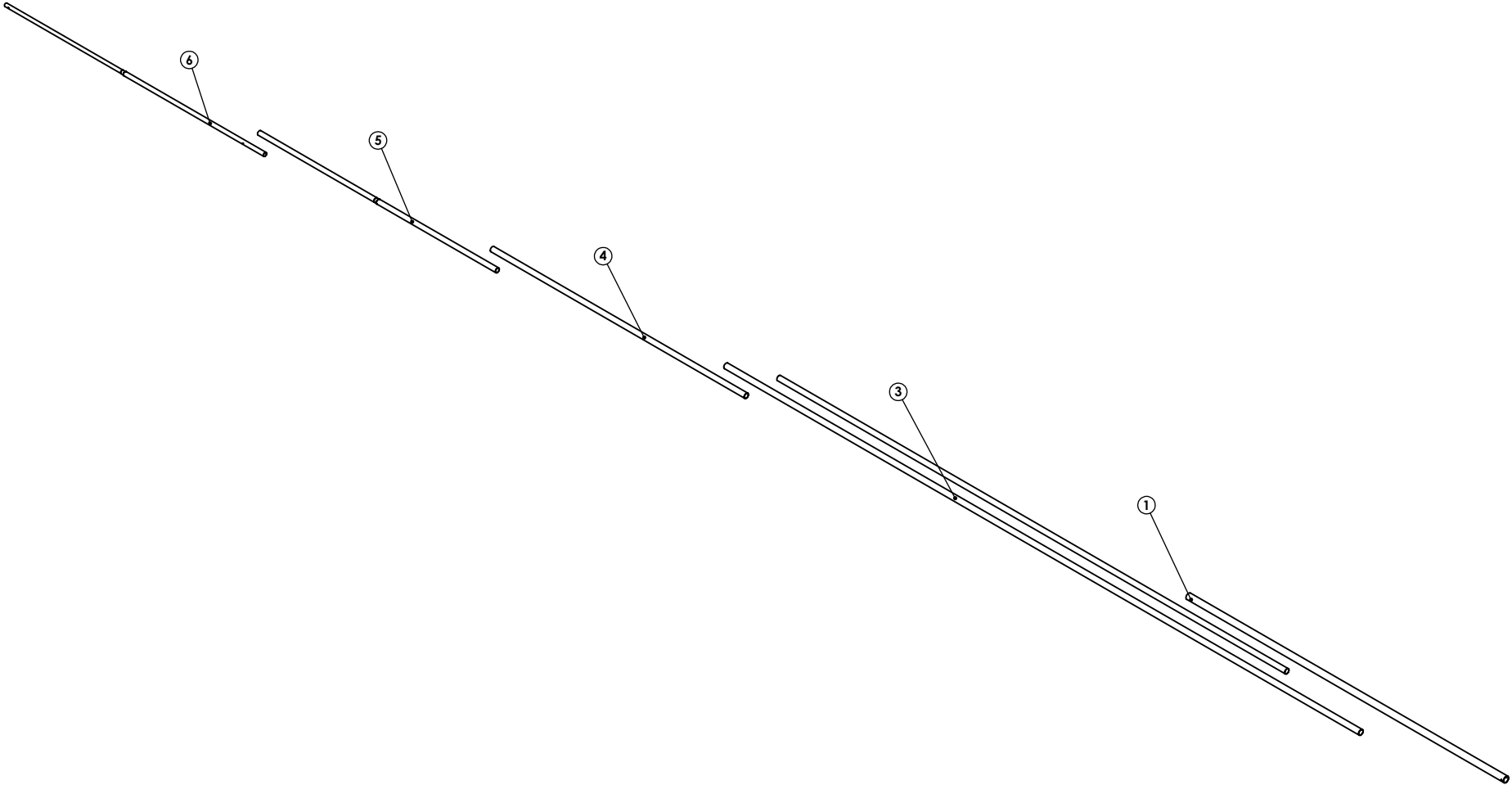
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



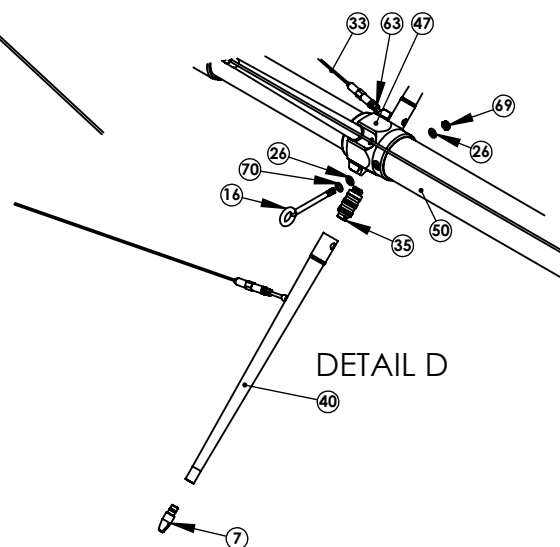
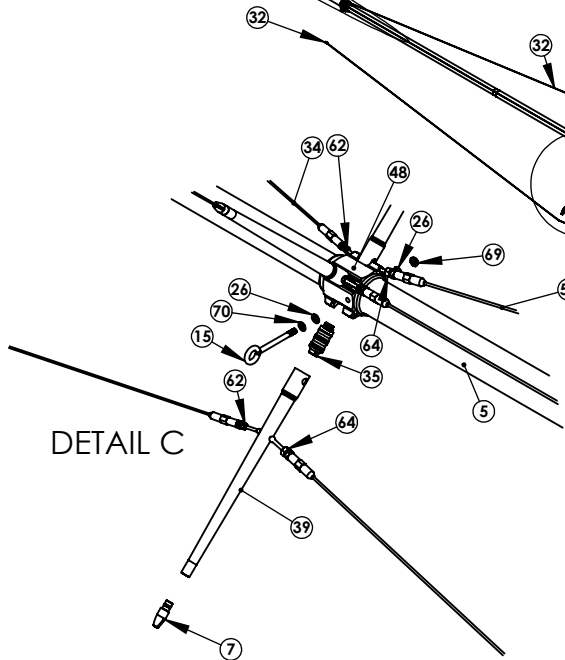
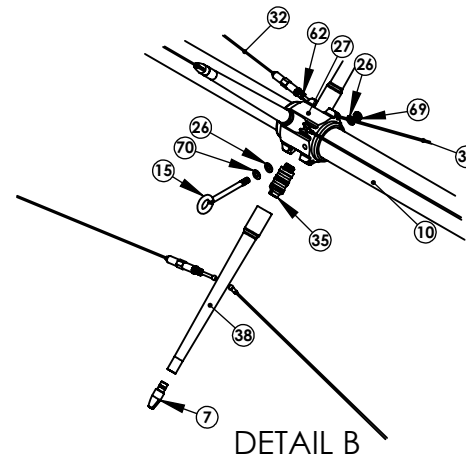
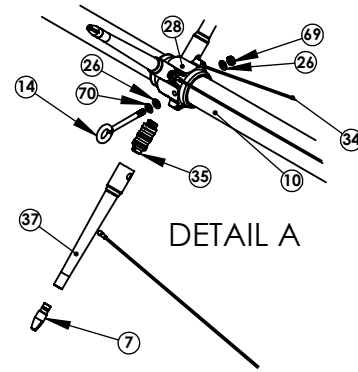
RUPP002167

#	QTY	Part No	Description
1	1	03-1002-23 (03-1003-23)	Tube 8-10f (Tube 11F)
3	1	03-1010-23	1.75 x 1.625 x 20' Tube
4	1	03-1041-23	UPPER INTERMEDIATE TUBE
5	1	03-1240-23	TIP SECTION LOWER
6	1	03-1239-23	TIP SECTION UPPER



RUPP002168

Tip Section  
Sheet 3



RUPP002169

DETAIL E

Knuckle Arm  
Sheet 2

Hold-In Arm  
Sheet 2

Back Bar  
Sheet 3

Base  
Sheet 2

#	QTY	Part #	Description
5	1	03-1019-23	Middle Intermediate Tube
7	16	03-1033-AS	SPREADER TIP
10	1	03-1041-23	UPPER INTERMEDIATE TUBE
14	1	03-1064-42	Eye Bolt
15	2	03-1065-42	Eye Bolt
16	1	03-1066-23	Eye Bolt
17	1	03-1067-42	Eye Bolt
26	14	03-1175-50	Washer, Nylon
27	1	03-1193-23	Spreader Center 1-3/4 x 1-5/8 Ball
28	1	03-1197-23	Spreader Center 1-5/8 x 1-1/2 Ball
32	4	03-1210-40	Cable ASM
33	4	03-1217-40	Cable ASM
34	4	03-1217-40	Cable ASM
35	16	03-1243-AS	Spreader "O" Ring Stud
37	4	03-1247-23	7" Spreader Tube
38	4	03-1248-23	9" Spreader Tube
39	4	03-1249-23	12" Spreader Tube
40	4	03-1250-23	15" Spreader Tube
46	1	03-1527-23	Cable Base Collar 2-3/8"
47	1	03-1529-23	Spreader Center 2-3/8" x 2-3/16"
48	1	03-1530-23	Spreader Center 2" x 1-3/4"
50	1	03-1532-23	TAPERED BASE TUBE
51	1	03-1533-23	Tapered Intermediate Tube
54	4	03-1541-40	Cable ASM
58	1	03-1714-23	TIP SECTION LOWER HEAVY
62	8	203-1315-00	Turnbuckle Ball Shank
63	4	203-1322-00	TurnBuckle Ball Shank 5/16 Dia Ball
64	4	203-1323-00	TurnBuckle Ball Shank 3/8-24
68	2	420-NEO-01	1/4-20 Nylock Nut
69	16	420-NTE-01	1/4-20 Nylock
70	8	500-250-S1	1/2 x 1/4 Washer

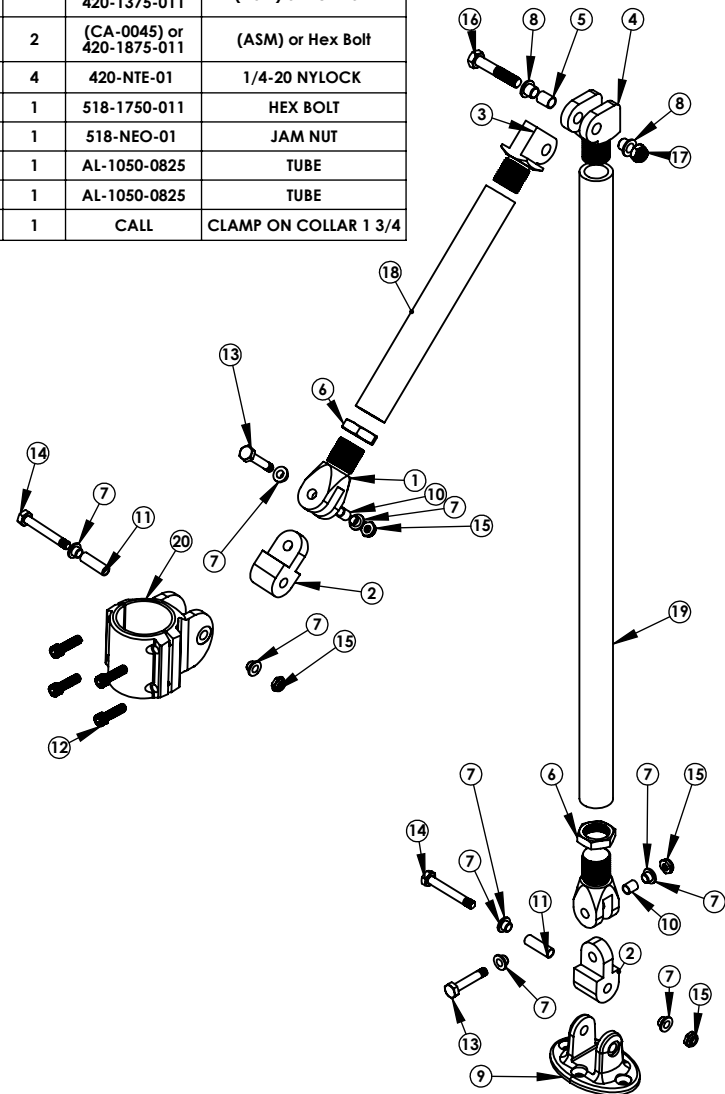


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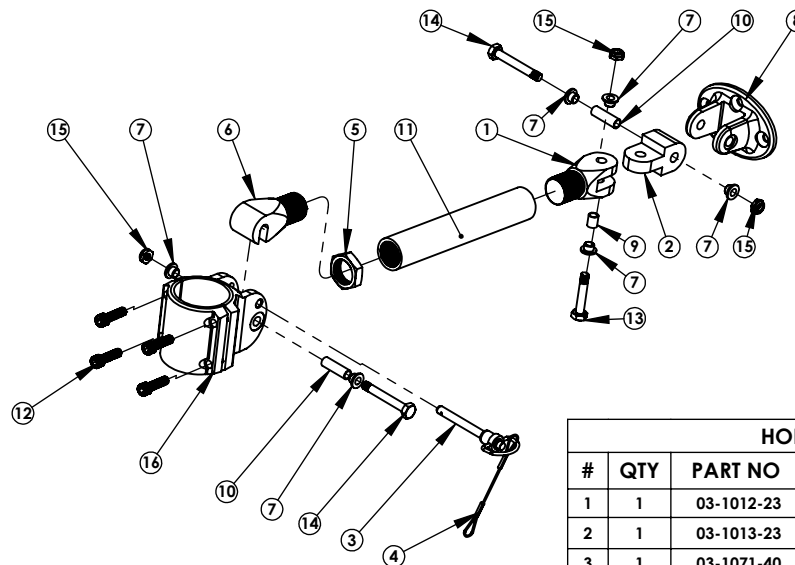
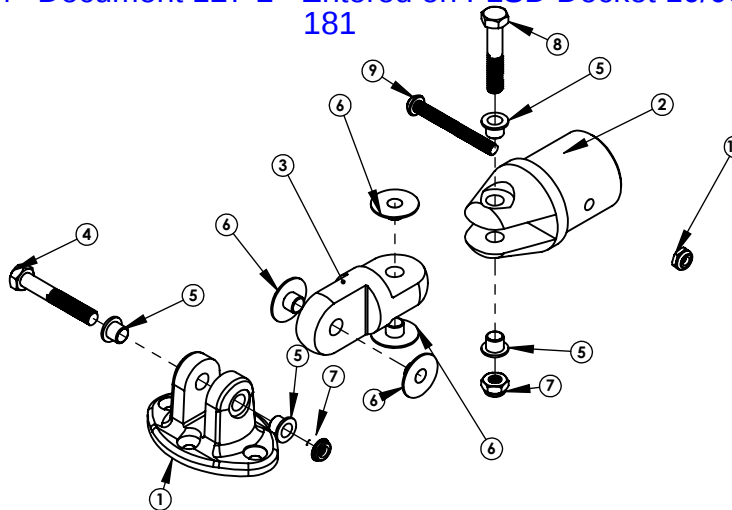
**A4-0012(12-14)-BR**  
**Parts Breakdown**

Last Updated 5/19/2021 Sheet 1 of 4

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	Screw 1/4"-20
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



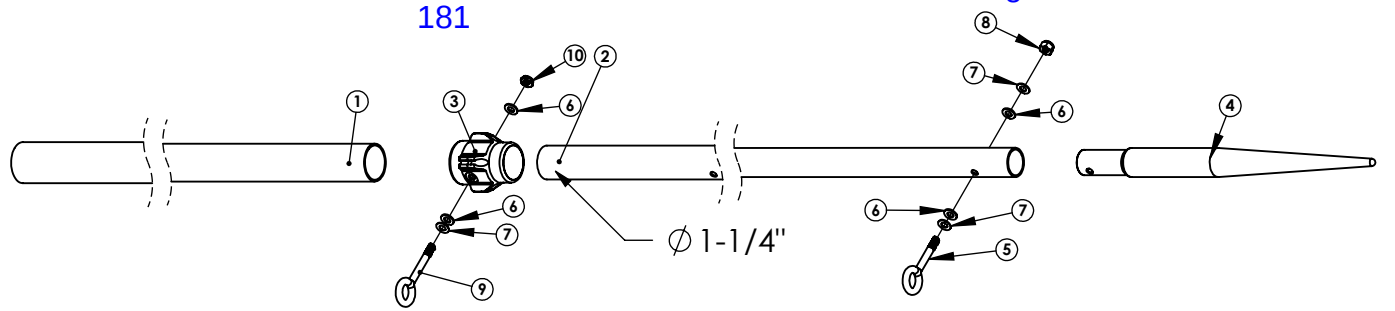
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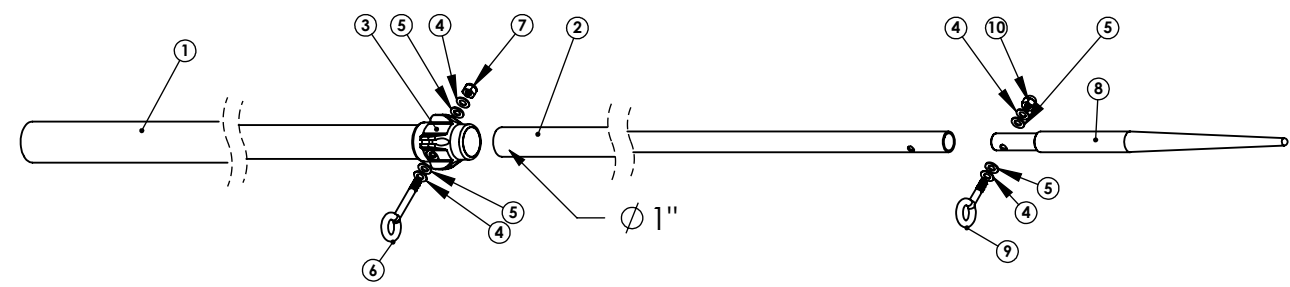
Base			
#	QTY	Part No	Description
1	1	03-1545-23	Oval Main Base
2	1	03-1037-23	Base Tube End 2"
3	1	03-1036-23	Base Toggle
4	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
5	4	03-1122-50	Flanged Bushing
6	4	03-1205-50	Base Toggle Bushing
7	2	518-NEO-01	Jam Nut
8	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
9	1	420-2250-221	Bolt
10	1	420-NTE-01	1/4-20 Nylock

HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	Screw 1/4"-20
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

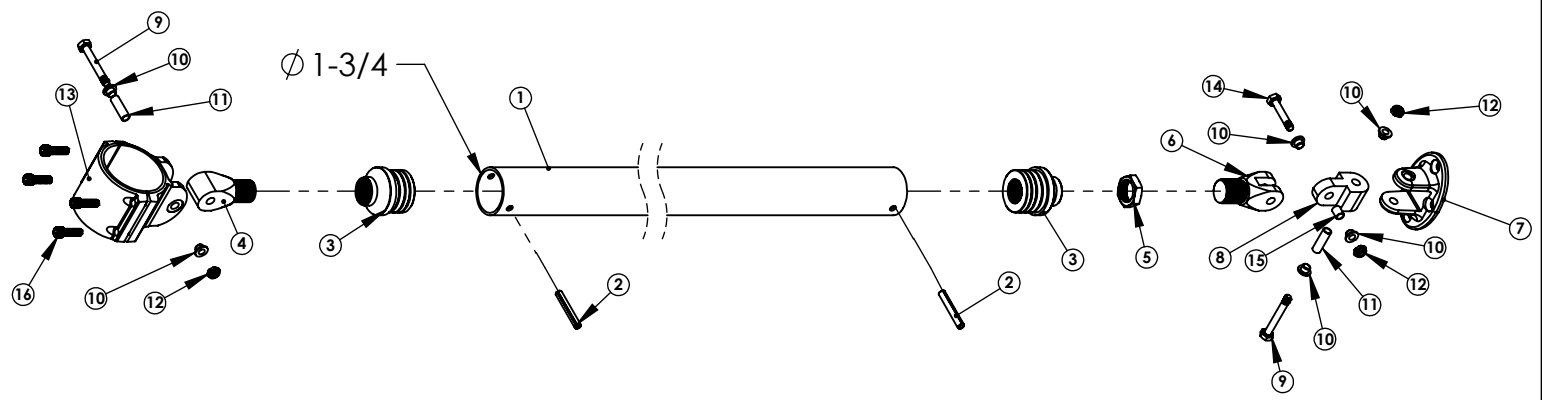
Heavy Tip Section			
#	QTY	Part No	Description
1	1	03-1714-23	TIP SECTION LOWER HEAVY
2	1	03-1715-23	TIP SECTION UPPER HEAVY
3	1	03-1717-23	TIP CABLE ANCHOR HEAVY
4	1	03-1716-23	TIP POINT/HEAVY
5	1	03-1062-42	Eye Bolt
6	4	03-1175-50	Washer, Nylon
7	3	500-250-S1	1/2 x 1/4 Washer
8	1	420-NEO-01	1/4-20 Nylock Nut
9	1	03-1063-42	Eye Bolt
10	1	420-NTE-01	1/4-20 Nylock



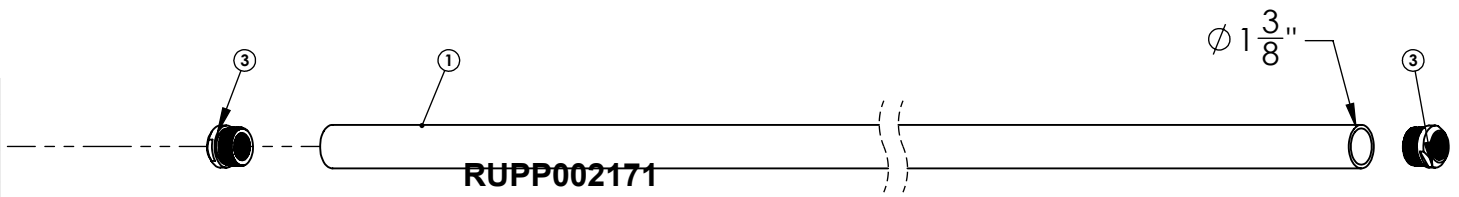
Std Tip Section			
#	QTY	Part No	Description
1	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
2	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
3	1	03-1190-23	Tip Cable Anchor Ball Type
4	4	500-250-S1	1/2 x 1/4 Washer
5	4	03-1175-50	Washer, Nylon
6	1	03-1063-42	Eye Bolt
7	1	420-NEO-01	1/4-20 Nylock Nut
8	1	03-1023-23	Tip Point
9	1	03-1061-42	Eye Bolt
10	1	420-CBO-00	Cap Nut



BR Back Bar			
#	QTY	Part No	Description
1	1	03-1553-23	Tube
2	2	03-1697-40	1/4" x 1 3/4" Spring Pin
3	2	03-1556-23	1-3/4 x 7/8 REDUCER
4	1	03-1022-23	Solid Clevis 7/8 x 14
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1012-23	Clevis
7	1	03-1198-23	Oval Toggle Base
8	1	03-1013-23	Clevis Toggle
9	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
10	6	03-1121-50	1/4 Flanged Sleeve
11	2	03-1253-50	Tube Bushing 1"
12	3	420-NTE-01	1/4-20 Nylock
13	1	Call	Clamp on Collar 2-3/8
14	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
15	1	03-1252-50	Tube Bushing .375
16	4	420-0875-041	Screw 1/4"-20

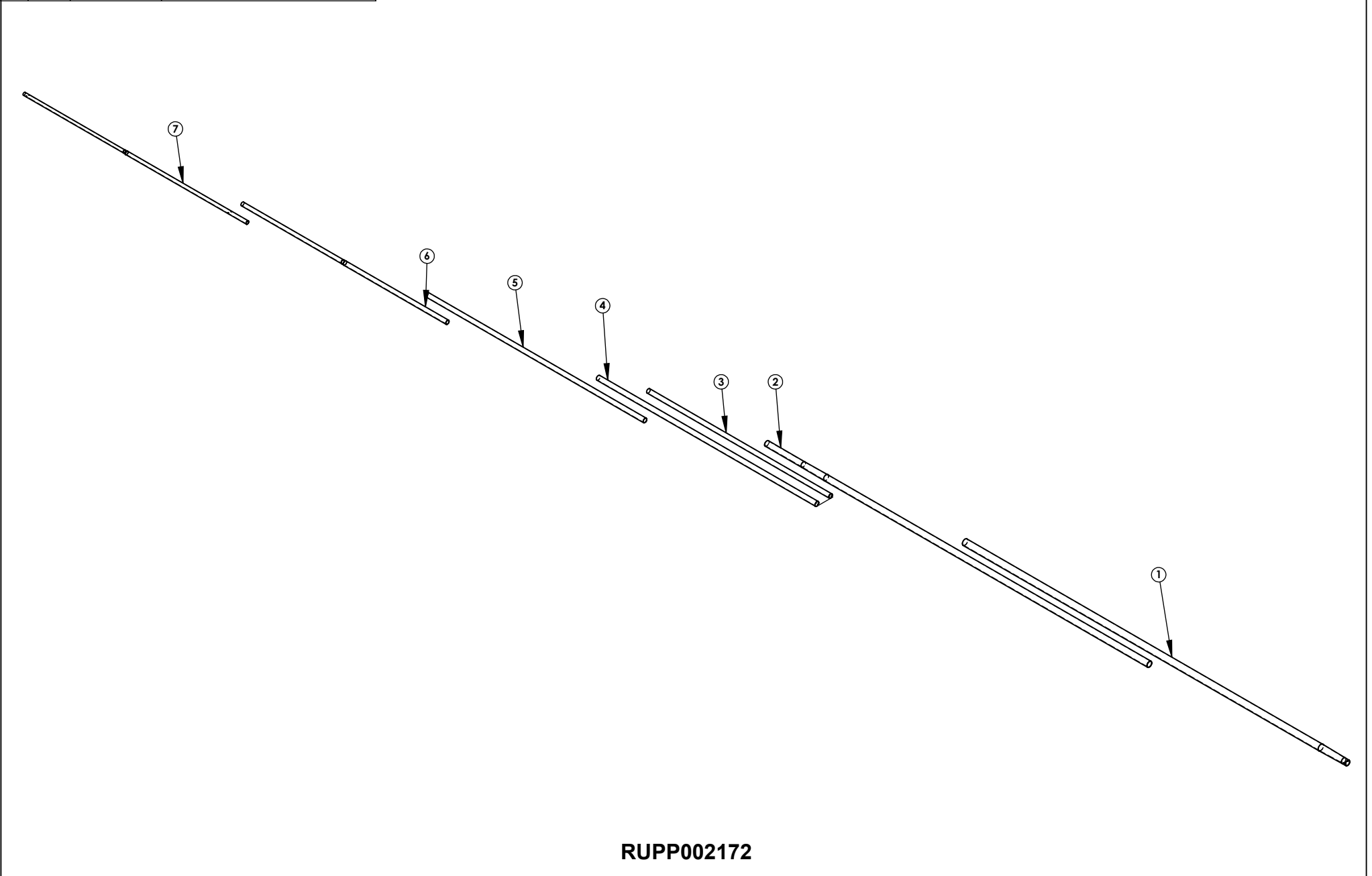


Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer

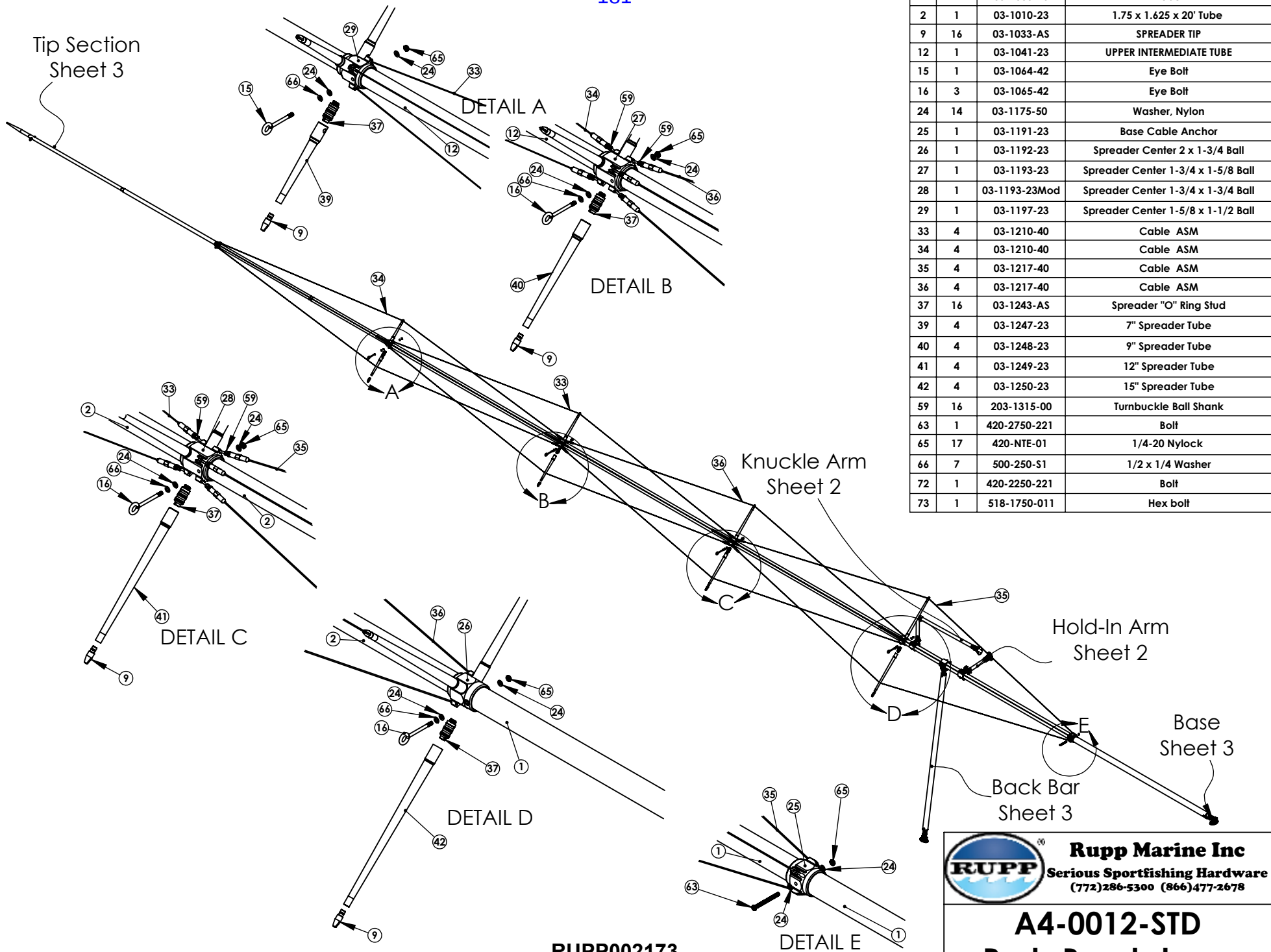


RUPP002171

#	QTY	Part No	Description
1	1	03-1532-23	TAPERED BASE TUBE
2	1	03-1533-23	Tapered Intermediate Tube
3	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
4	1	03-1019-23	Middle Intermediate Tube
5	1	03-1041-23	UPPER INTERMEDIATE TUBE
6	1	03-1714-23	TIP SECTION LOWER HEAVY
7	1	03-1715-23	TIP SECTION UPPER HEAVY

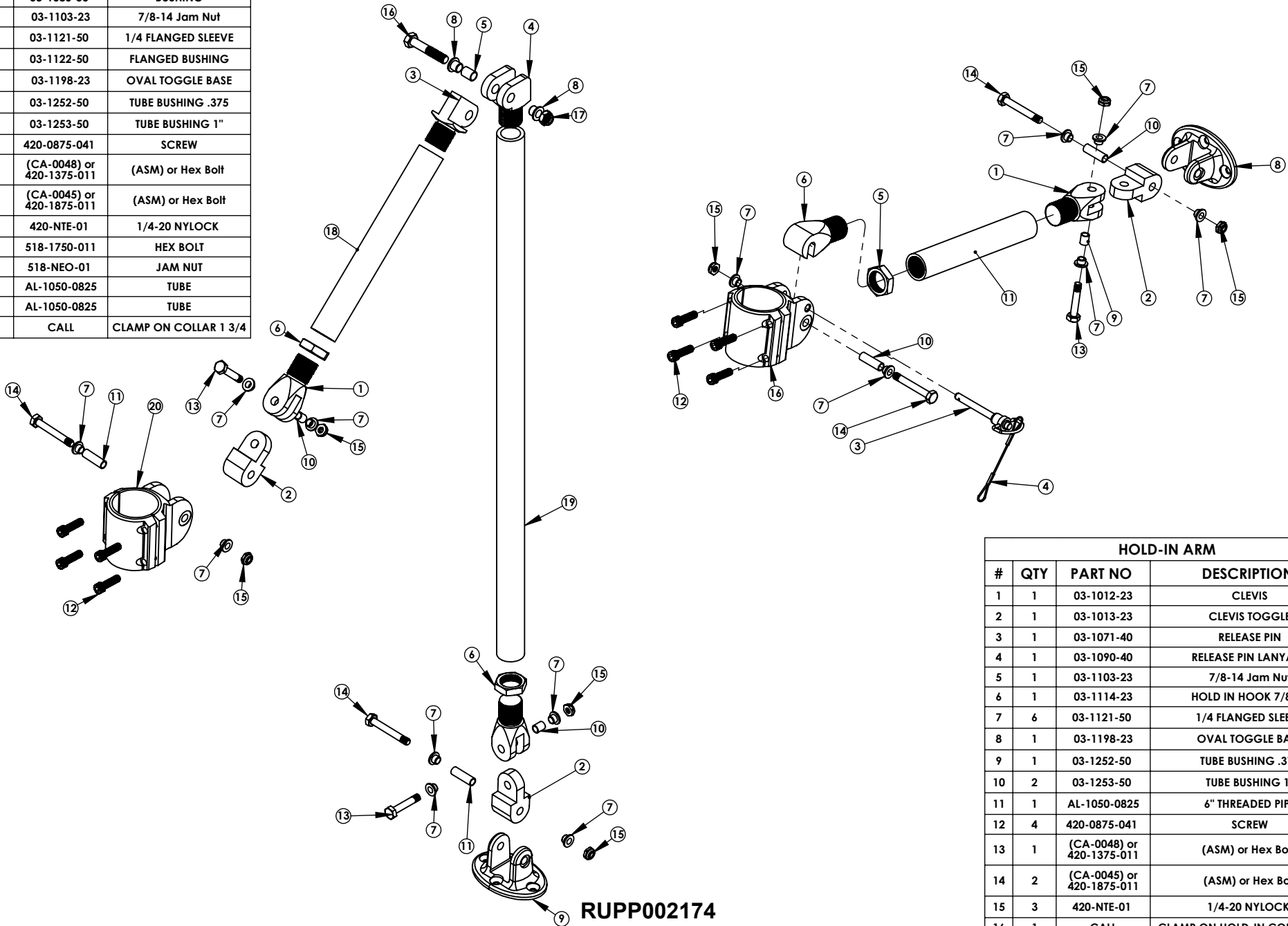


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KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



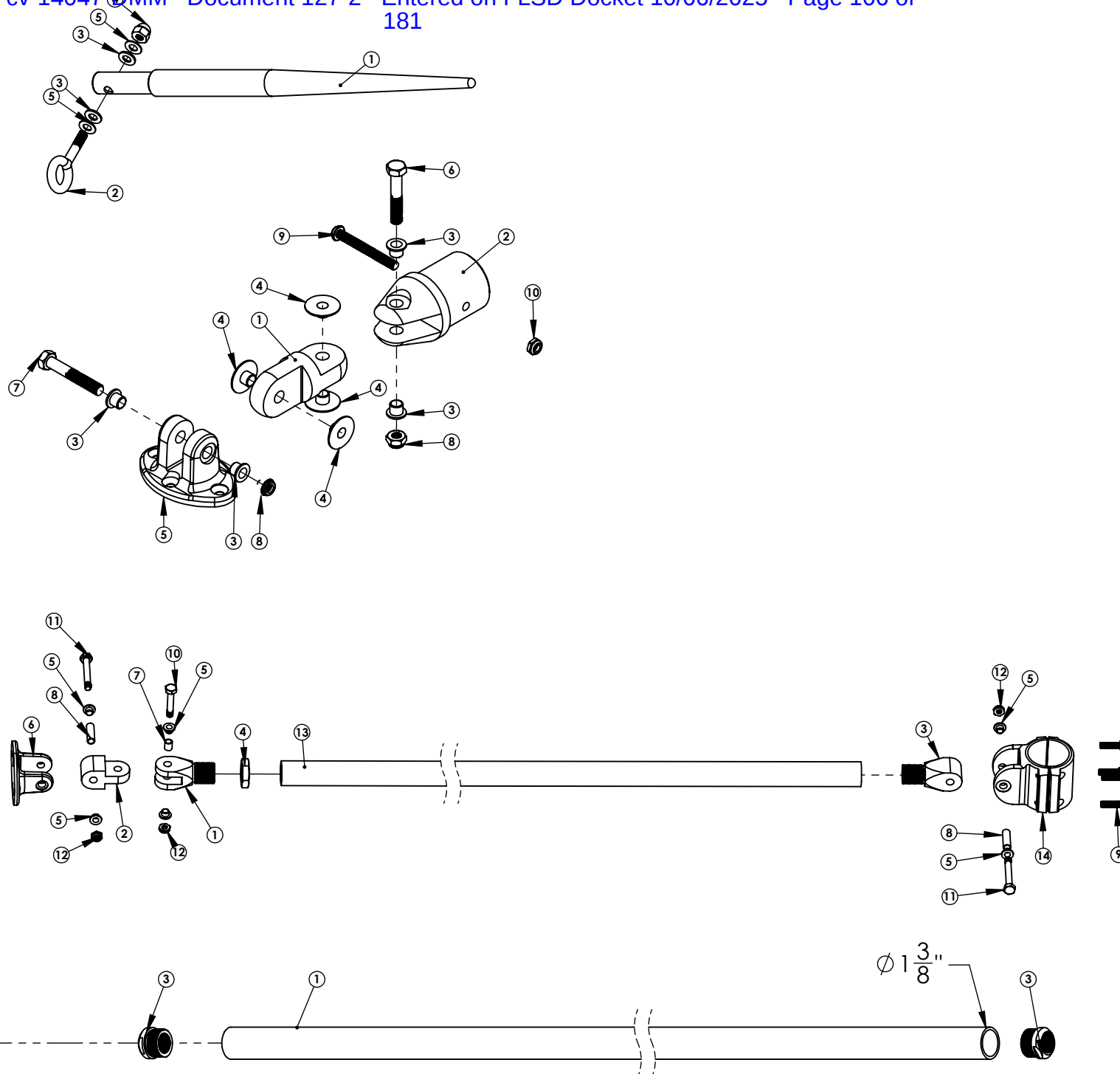
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

TIP			
#	QTY	PART NO	DESCRIPTION
1	1	03-1023-23	TIP POINT
2	1	03-1061-42	EYE BOLT
3	2	03-1175-50	WASHER, NYLON
4	1	420-CBO-00	CAP NUT
5	2	500-250-S1	1/2 X 1/4 WASHER

BASE			
#	QTY	PART NO	DESCRIPTION
1	1	03-1036-23	BASE TOGGLE
2	1	03-1037-23	BASE TUBE END 2"
3	4	03-1122-50	FLANGED BUSHING
4	4	03-1205-50	BASE TOGGLE BUSHING
5	1	03-1545-23	OVAL MAIN BASE
6	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
7	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
8	2	518-NEO-01	JAM NUT
9	1	420-2250-221	BOLT
10	1	420-NTE-01	1/4-20 NYLOCK

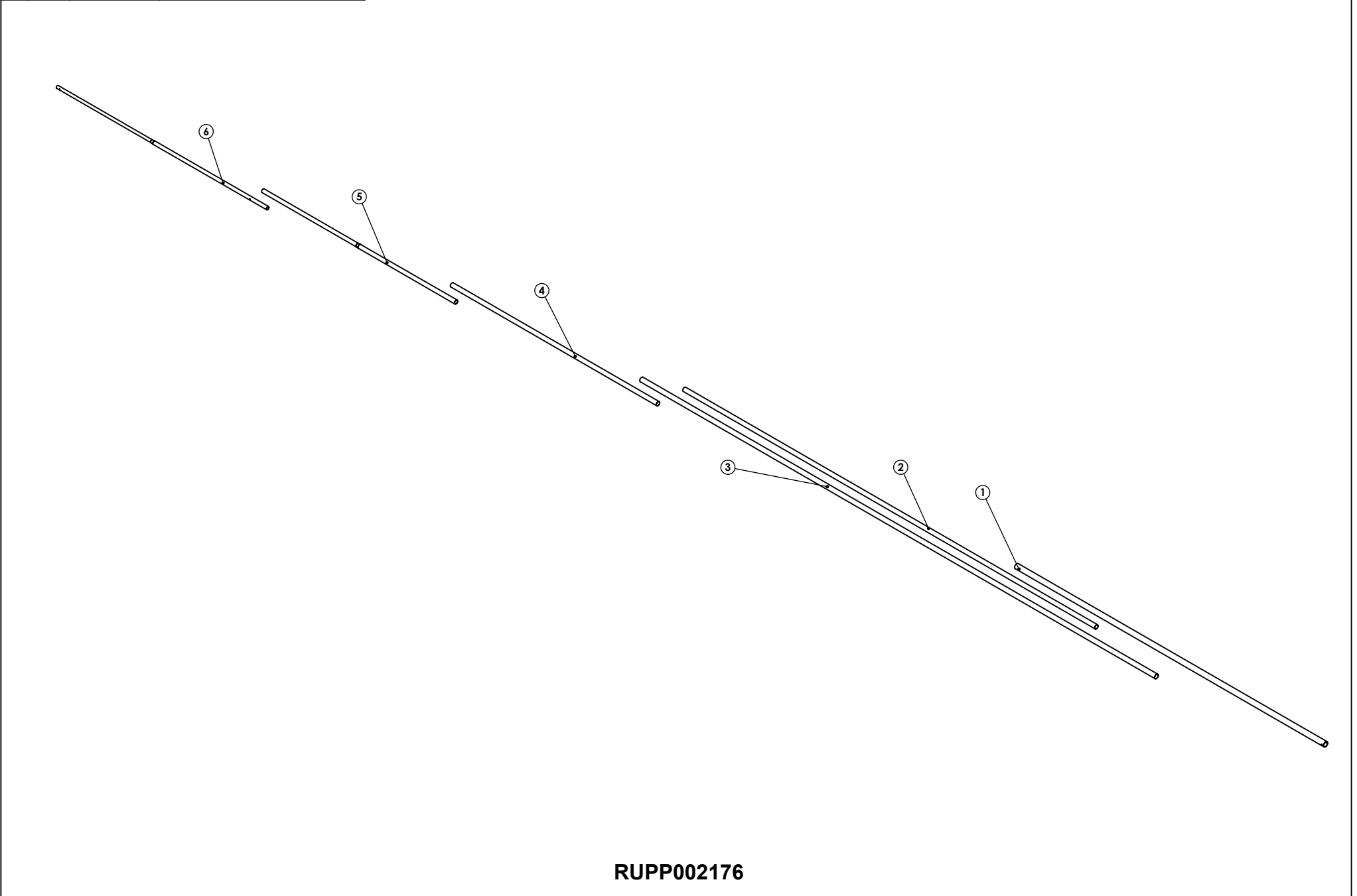
BACK BAR (1")			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1022-23	SOLID CLEVIS 7/8 X 14
4	1	03-1103-23	7/8-14 Jam Nut
5	6	03-1121-50	1/4 FLANGED SLEEVE
6	1	03-1198-23	OVAL TOGGLE BASE
7	1	03-1252-50	TUBE BUSHING .375
8	2	03-1253-50	TUBE BUSHING 1"
9	4	420-0875-041	SCREW
10	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
11	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
12	3	420-NTE-01	1/4-20 NYLOCK
13	1	AL-1050-0825	TUBE
14	1	CALL	CLAMP ON COLLAR 1 3/4

Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer

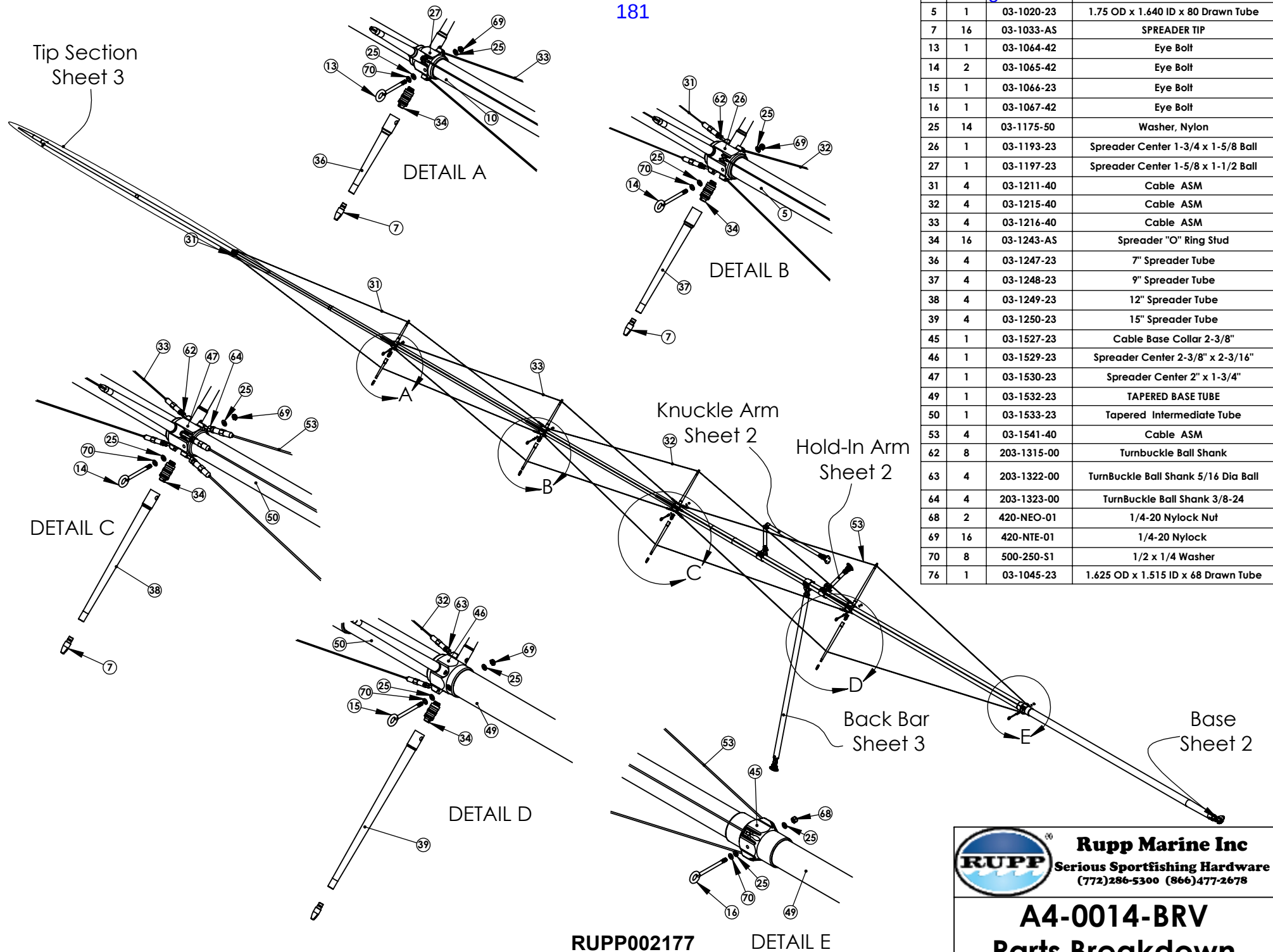


RUPP002175

#	QTY	Part No	Description
1	1	03-1003-23	Tube
2	1	03-1011-23	1.625 OD x 1.515 ID x 192" Drawn Tube
3	1	03-1010-23	1.75 x 1.625 x 20' Tube
4	1	03-1041-23	UPPER INTERMEDIATE TUBE
5	1	03-1240-23	TIP SECTION LOWER
6	1	03-1239-23	TIP SECTION UPPER



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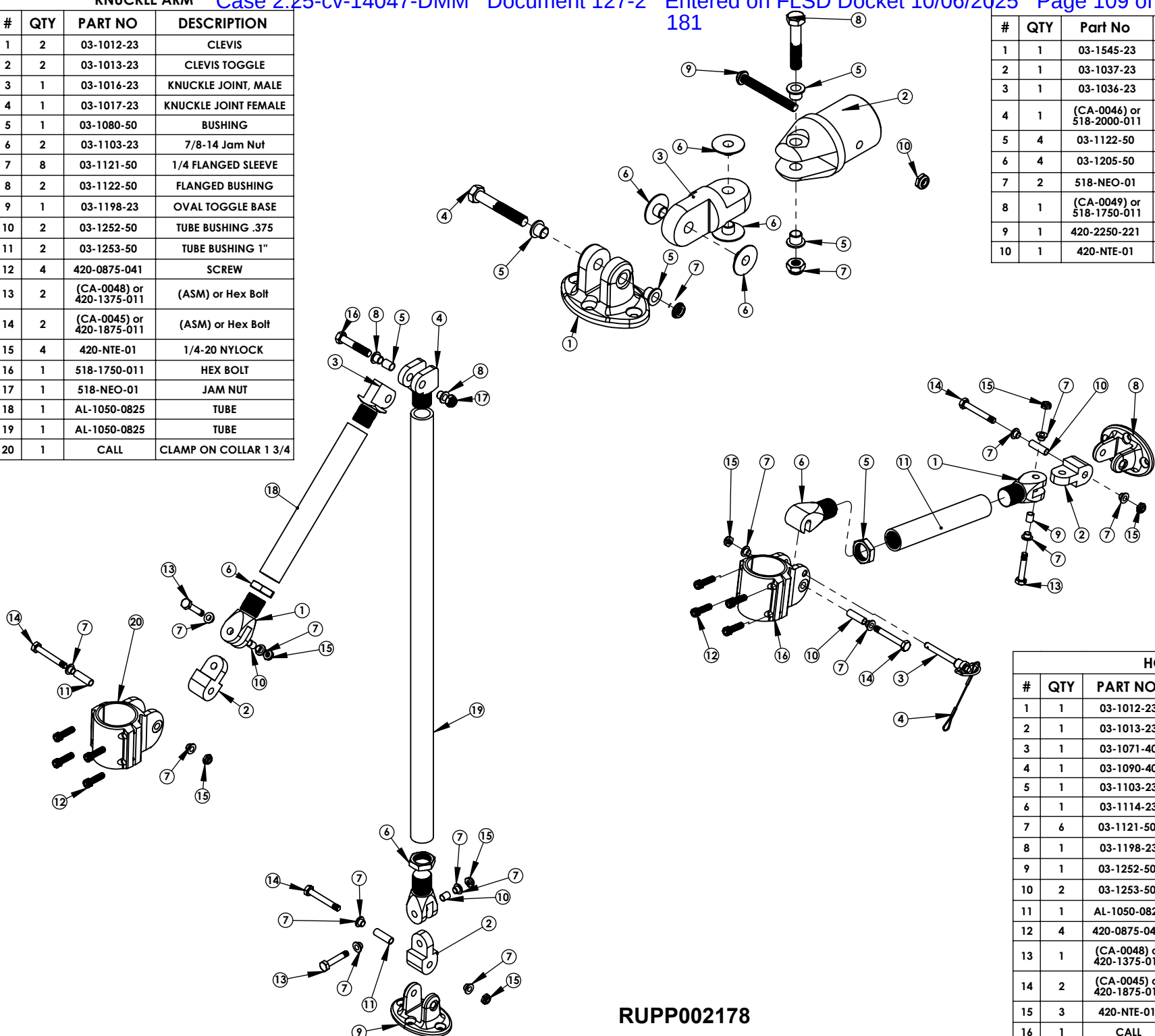


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**A4-0014-BRV**  
**Parts Breakdown**

Last Updated 4/1/2021 Sheet 1 of 4

KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4



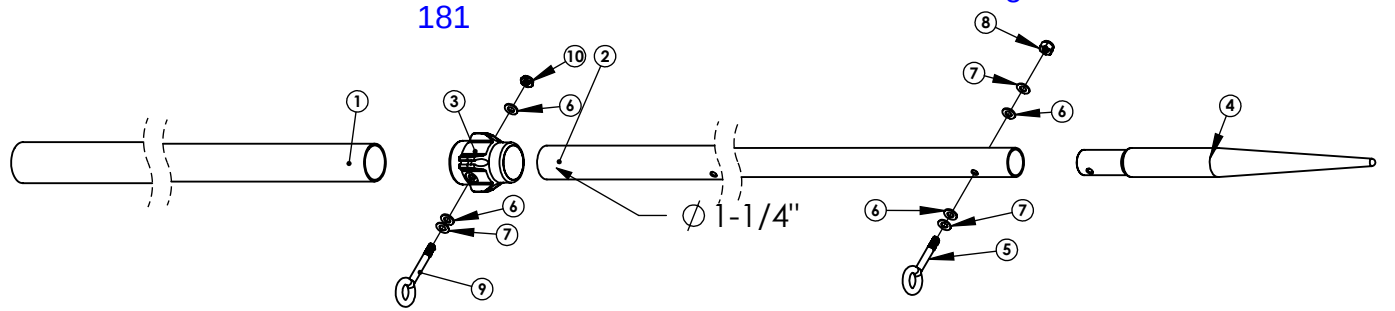
RUFP002178

Base			
#	QTY	Part No	Description
1	1	03-1545-23	Oval Main Base
2	1	03-1037-23	Base Tube End 2"
3	1	03-1036-23	Base Toggle
4	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
5	4	03-1122-50	Flanged Bushing
6	4	03-1205-50	Base Toggle Bushing
7	2	518-NEO-01	Jam Nut
8	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
9	1	420-2250-221	Bolt
10	1	420-NTE-01	1/4-20 Nylock

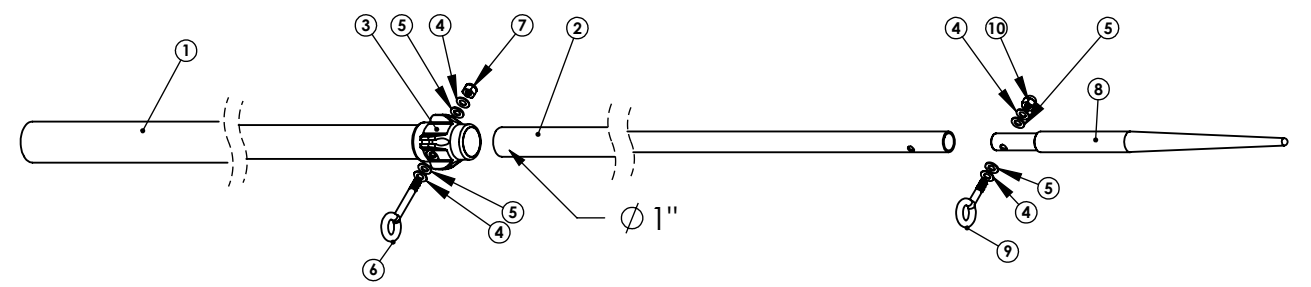
HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

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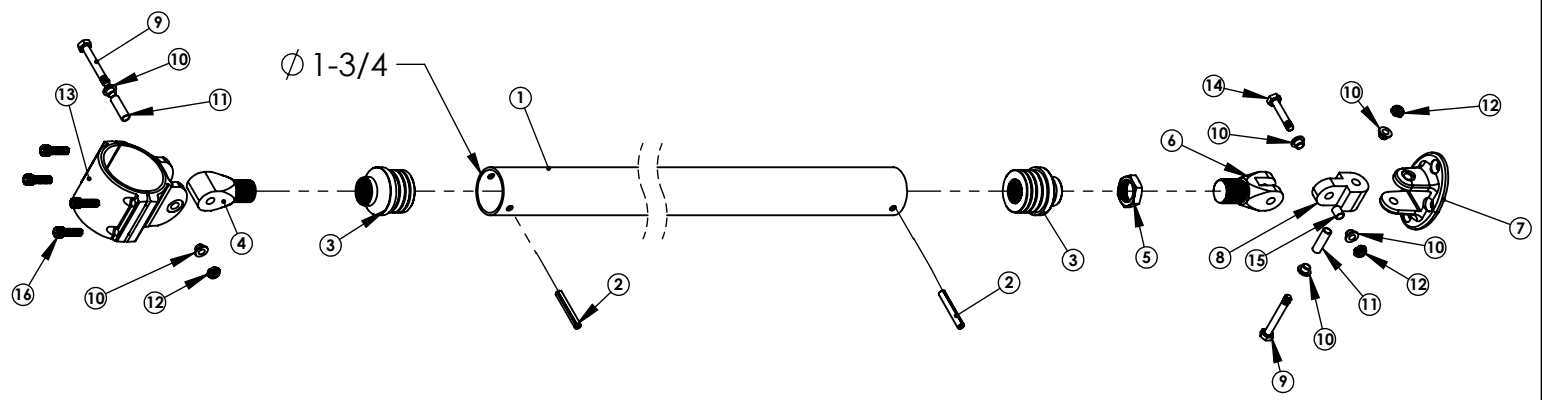
Heavy Tip Section			
#	QTY	Part No	Description
1	1	03-1714-23	TIP SECTION LOWER HEAVY
2	1	03-1715-23	TIP SECTION UPPER HEAVY
3	1	03-1717-23	TIP CABLE ANCHOR HEAVY
4	1	03-1716-23	TIP POINT/HEAVY
5	1	03-1062-42	Eye Bolt
6	4	03-1175-50	Washer, Nylon
7	3	500-250-S1	1/2 x 1/4 Washer
8	1	420-NEO-01	1/4-20 Nylock Nut
9	1	03-1063-42	Eye Bolt
10	1	420-NTE-01	1/4-20 Nylock



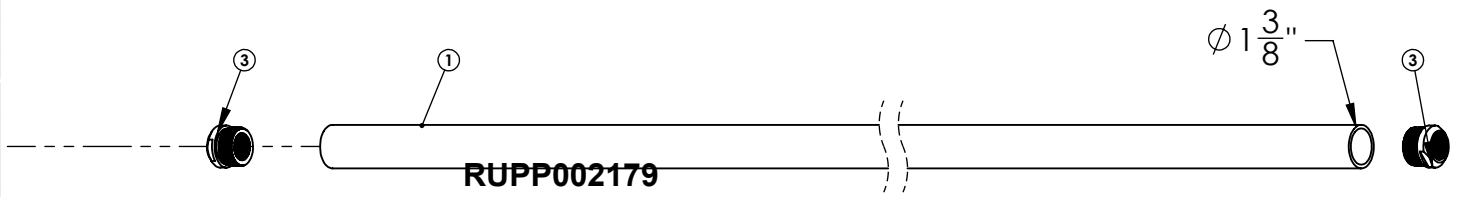
Std Tip Section			
#	QTY	Part No	Description
1	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
2	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
3	1	03-1190-23	Tip Cable Anchor Ball Type
4	4	500-250-S1	1/2 x 1/4 Washer
5	4	03-1175-50	Washer, Nylon
6	1	03-1063-42	Eye Bolt
7	1	420-NEO-01	1/4-20 Nylock Nut
8	1	03-1023-23	Tip Point
9	1	03-1061-42	Eye Bolt
10	1	420-CBO-00	Cap Nut



BR Back Bar			
#	QTY	Part No	Description
1	1	03-1553-23	Tube
2	2	03-1697-40	1/4" x 1 3/4" Spring Pin
3	2	03-1556-23	1-3/4 x 7/8 REDUCER
4	1	03-1022-23	Solid Clevis 7/8 x 14
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1012-23	Clevis
7	1	03-1198-23	Oval Toggle Base
8	1	03-1013-23	Clevis Toggle
9	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
10	6	03-1121-50	1/4 Flanged Sleeve
11	2	03-1253-50	Tube Bushing 1"
12	3	420-NTE-01	1/4-20 Nylock
13	1	Call	Clamp on Collar 2-3/8
14	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
15	1	03-1252-50	Tube Bushing .375
16	4	420-0875-041	Screw

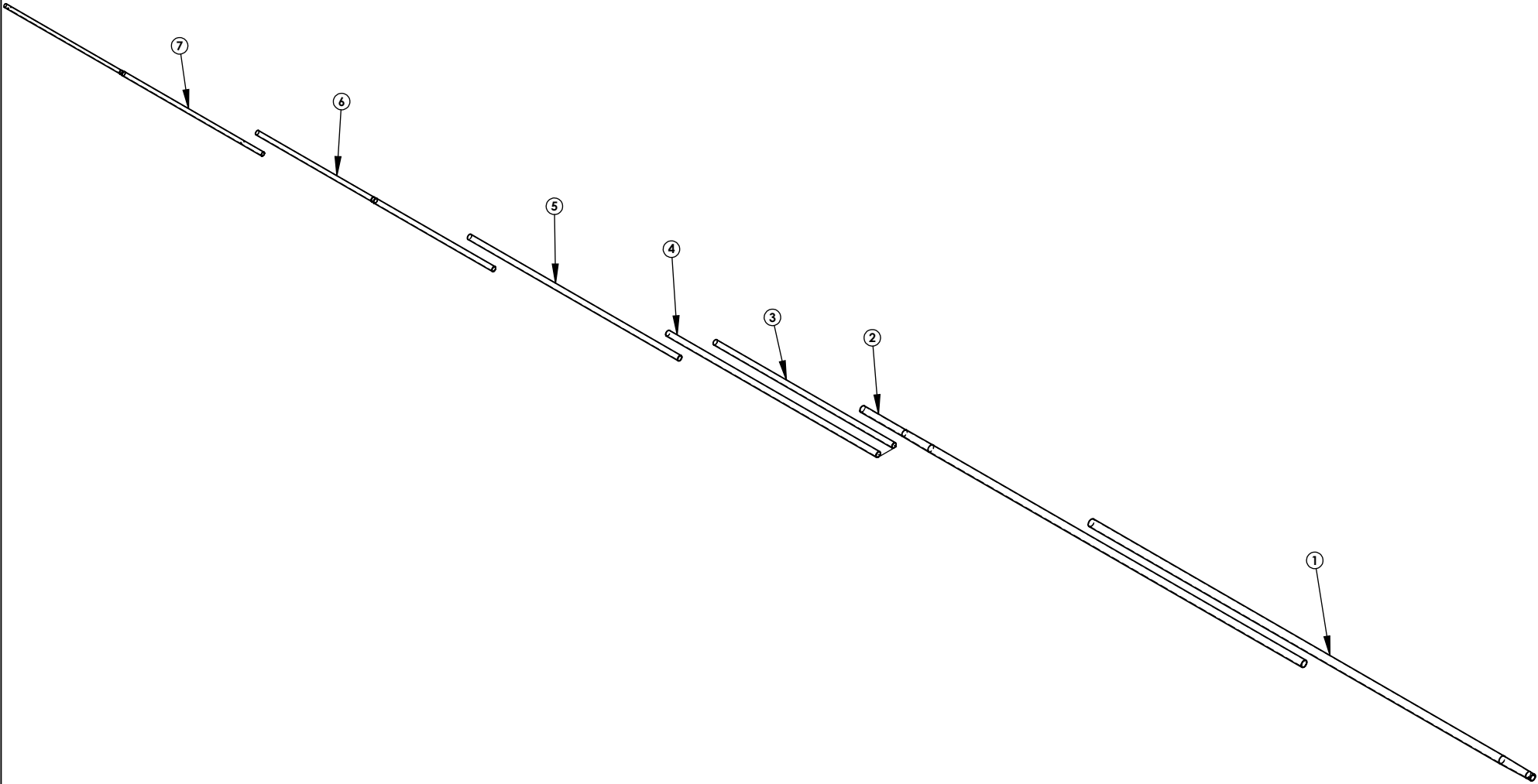


Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
2	2	03-1160-23	1-3/16 to 7/8 Reducer

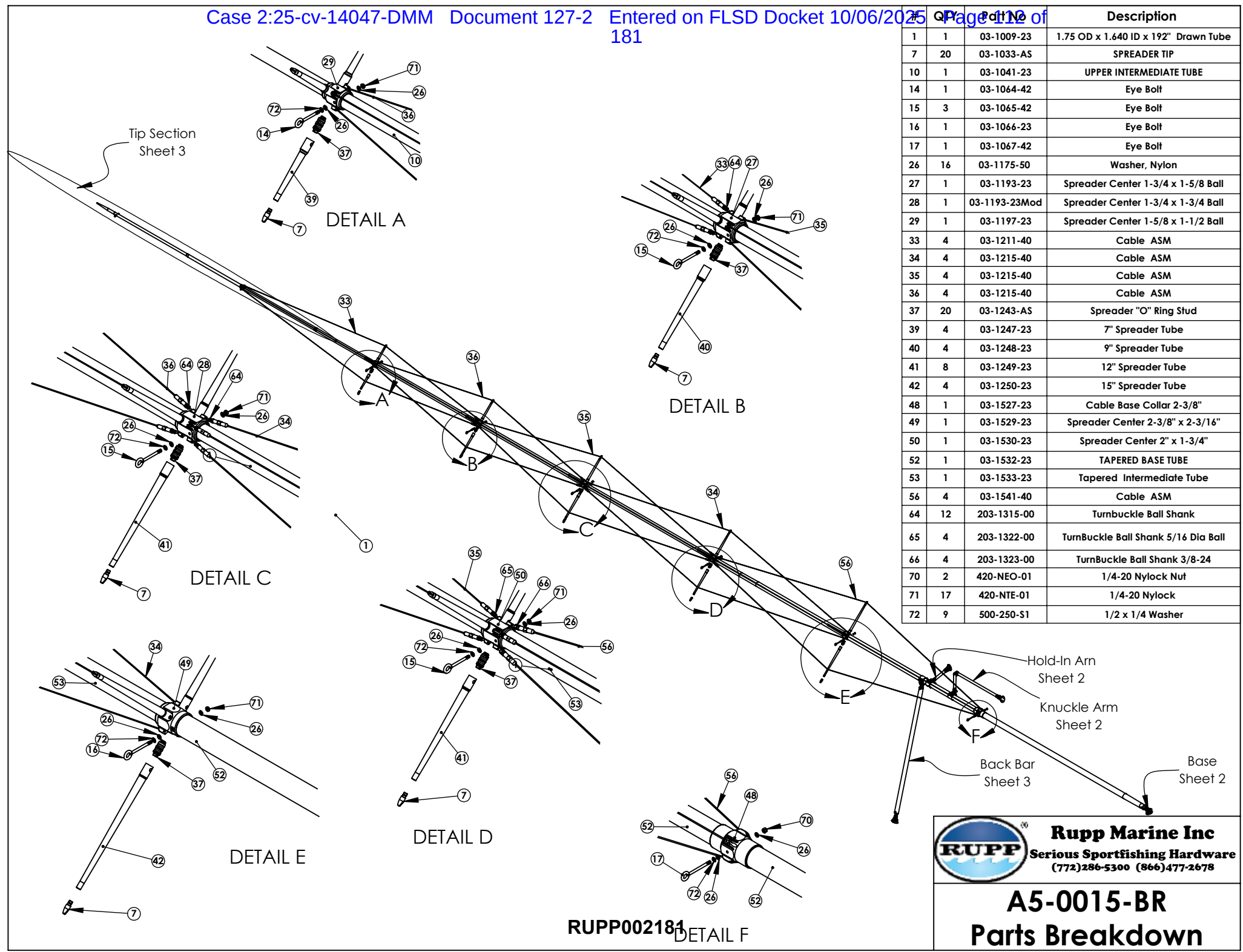


RUPP002179

#	QTY	Part No	Description
1	1	03-1532-23	TAPERED BASE TUBE
2	1	03-1533-23	Tapered Intermediate Tube
3	1	03-1045-23	1.625 OD x 1.515 ID x 68 Drawn Tube
4	1	03-1020-23	1.75 OD x 1.640 ID x 80 Drawn Tube
5	1	03-1046-23	1.625 OD x 1.515 ID x 80 Drawn Tube
6	1	03-1714-23	TIP SECTION LOWER HEAVY
7	1	03-1715-23	TIP SECTION UPPER HEAVY

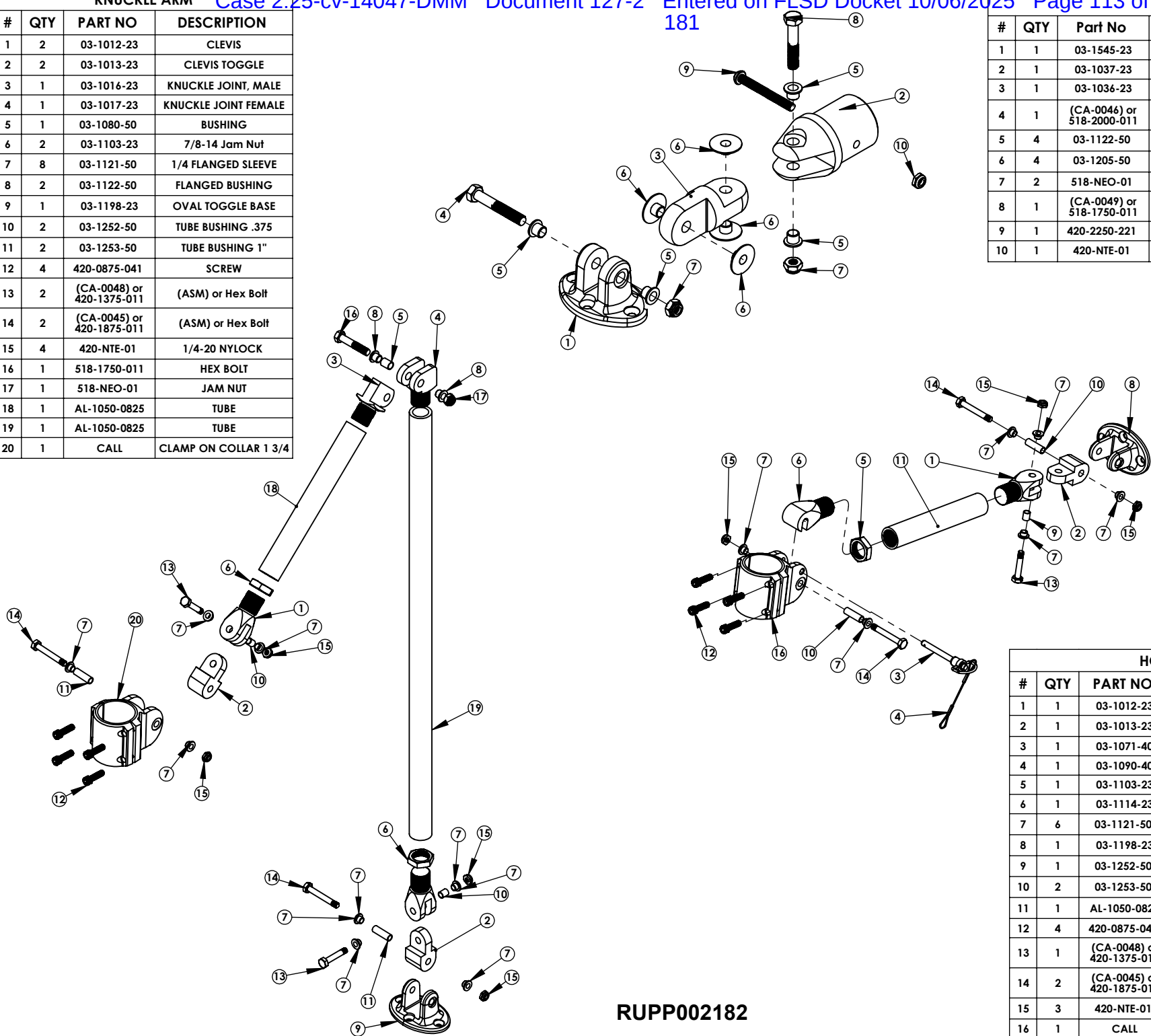


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KNUCKLE ARM			
#	QTY	PART NO	DESCRIPTION
1	2	03-1012-23	CLEVIS
2	2	03-1013-23	CLEVIS TOGGLE
3	1	03-1016-23	KNUCKLE JOINT, MALE
4	1	03-1017-23	KNUCKLE JOINT FEMALE
5	1	03-1080-50	BUSHING
6	2	03-1103-23	7/8-14 Jam Nut
7	8	03-1121-50	1/4 FLANGED SLEEVE
8	2	03-1122-50	FLANGED BUSHING
9	1	03-1198-23	OVAL TOGGLE BASE
10	2	03-1252-50	TUBE BUSHING .375
11	2	03-1253-50	TUBE BUSHING 1"
12	4	420-0875-041	SCREW
13	2	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	4	420-NTE-01	1/4-20 NYLOCK
16	1	518-1750-011	HEX BOLT
17	1	518-NEO-01	JAM NUT
18	1	AL-1050-0825	TUBE
19	1	AL-1050-0825	TUBE
20	1	CALL	CLAMP ON COLLAR 1 3/4

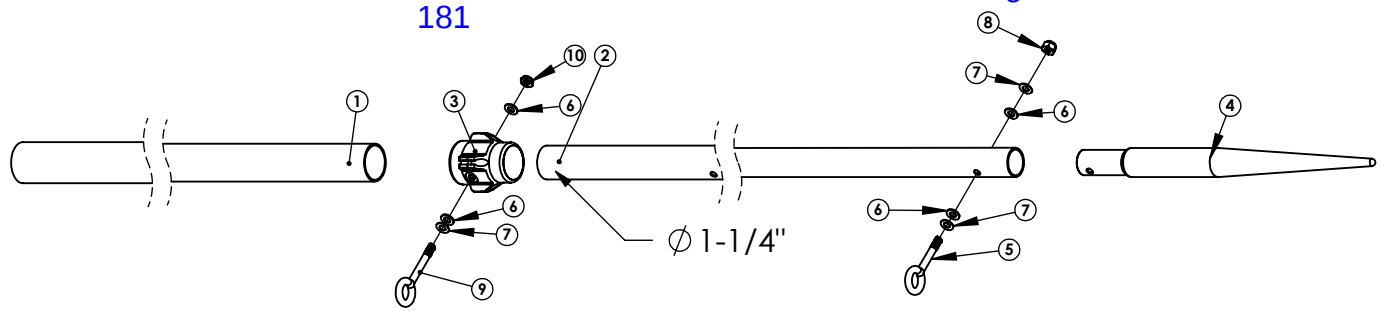


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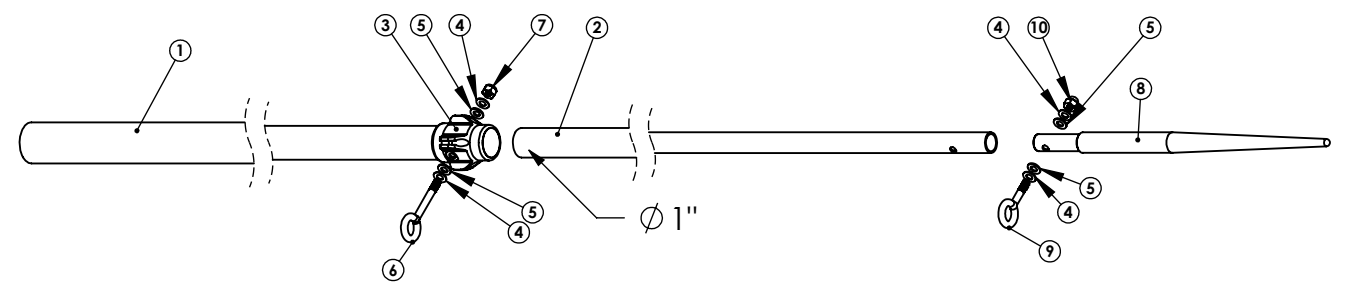
Base			
#	QTY	Part No	Description
1	1	03-1545-23	Oval Main Base
2	1	03-1037-23	Base Tube End 2"
3	1	03-1036-23	Base Toggle
4	1	(CA-0046) or 518-2000-011	(ASM) or Hex Bolt
5	4	03-1122-50	Flanged Bushing
6	4	03-1205-50	Base Toggle Bushing
7	2	518-NEO-01	Jam Nut
8	1	(CA-0049) or 518-1750-011	(ASM) or Hex bolt
9	1	420-2250-221	Bolt
10	1	420-NTE-01	1/4-20 Nylock

HOLD-IN ARM			
#	QTY	PART NO	DESCRIPTION
1	1	03-1012-23	CLEVIS
2	1	03-1013-23	CLEVIS TOGGLE
3	1	03-1071-40	RELEASE PIN
4	1	03-1090-40	RELEASE PIN LANYARD
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1114-23	HOLD IN HOOK 7/8-14
7	6	03-1121-50	1/4 FLANGED SLEEVE
8	1	03-1198-23	OVAL TOGGLE BASE
9	1	03-1252-50	TUBE BUSHING .375
10	2	03-1253-50	TUBE BUSHING 1"
11	1	AL-1050-0825	6" THREADED PIPE
12	4	420-0875-041	SCREW
13	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
14	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
15	3	420-NTE-01	1/4-20 NYLOCK
16	1	CALL	CLAMP ON HOLD-IN COLLAR 1-3/4

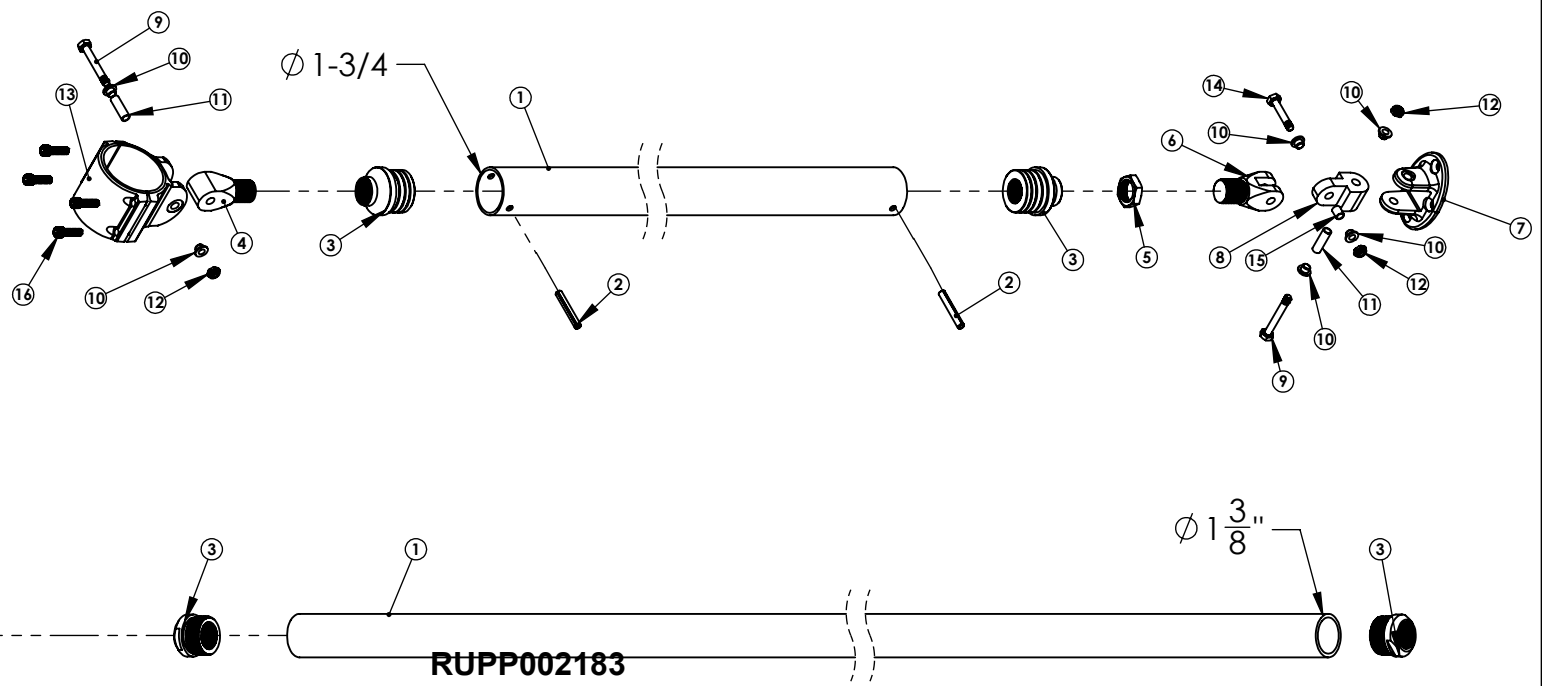
Heavy Tip Section			
#	QTY	Part No	Description
1	1	03-1714-23	TIP SECTION LOWER HEAVY
2	1	03-1715-23	TIP SECTION UPPER HEAVY
3	1	03-1717-23	TIP CABLE ANCHOR HEAVY
4	1	03-1716-23	TIP POINT/HEAVY
5	1	03-1062-42	Eye Bolt
6	4	03-1175-50	Washer, Nylon
7	3	500-250-S1	1/2 x 1/4 Washer
8	1	420-NEO-01	1/4-20 Nylock Nut
9	1	03-1063-42	Eye Bolt
10	1	420-NTE-01	1/4-20 Nylock



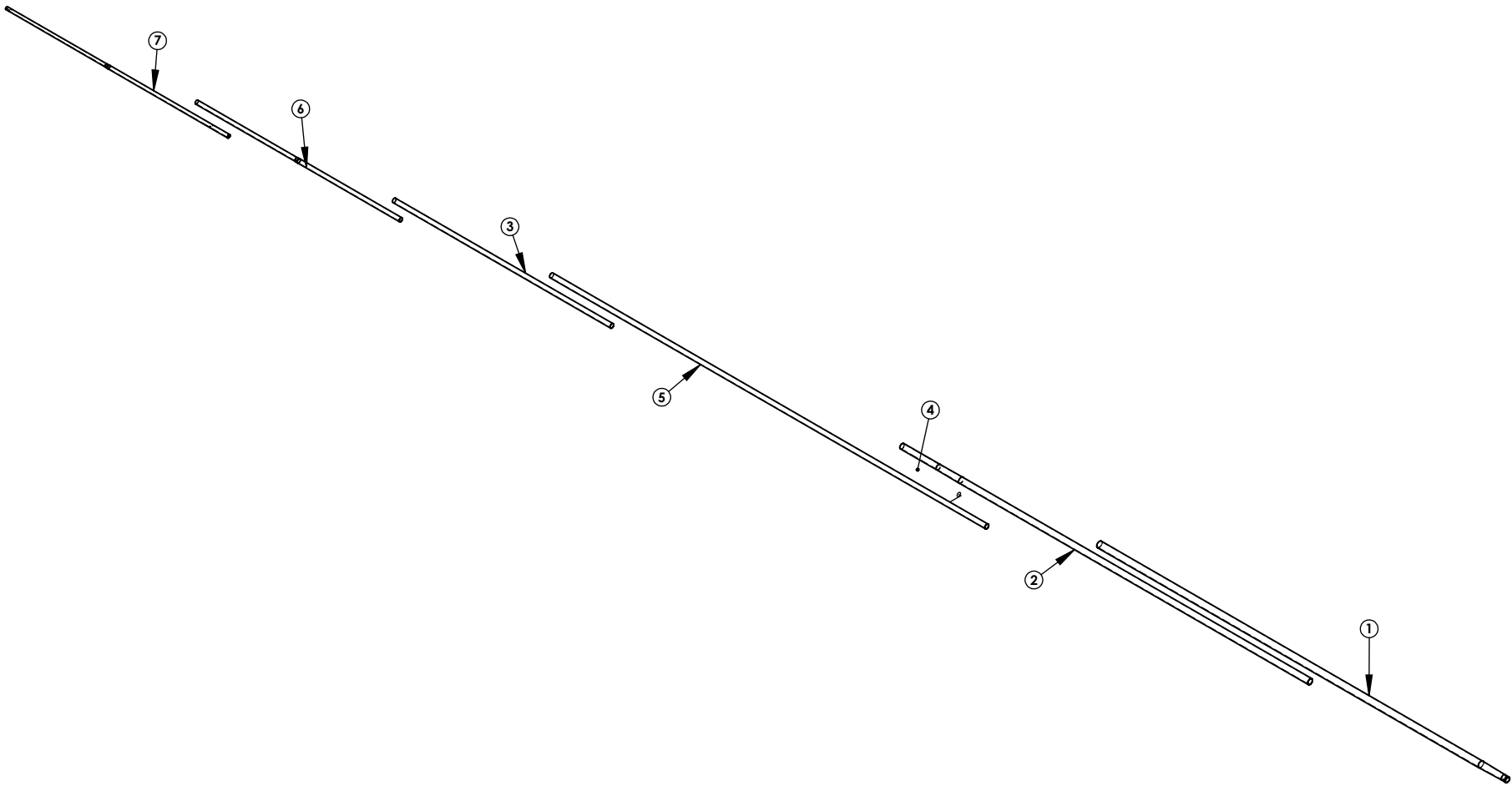
Std Tip Section			
#	QTY	Part No	Description
1	1	03-1240-23	Drawn Stepped Tube 15' 2Pc Section 90" 1-1/4 x 1-1/2
2	1	03-1239-23	Drawn Stepped Tube 15' 2 Pc Section 98" 3/4 x 1-1/16
3	1	03-1190-23	Tip Cable Anchor Ball Type
4	4	500-250-S1	1/2 x 1/4 Washer
5	4	03-1175-50	Washer, Nylon
6	1	03-1063-42	Eye Bolt
7	1	420-NEO-01	1/4-20 Nylock Nut
8	1	03-1023-23	Tip Point
9	1	03-1061-42	Eye Bolt
10	1	420-CBO-00	Cap Nut



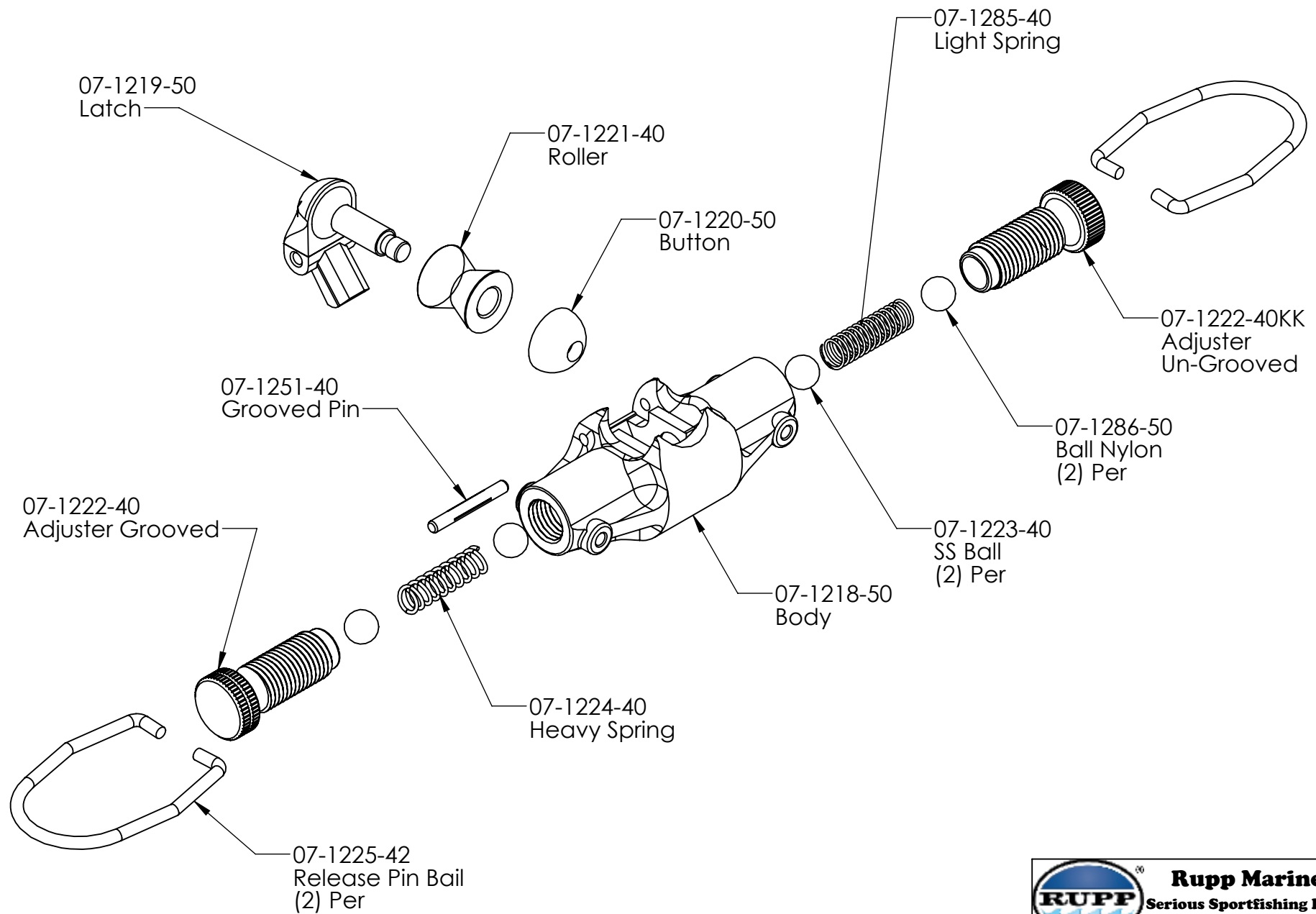
BR Back Bar			
#	QTY	Part No	Description
1	1	03-1553-23	Tube
2	2	03-1697-40	1/4" x 1 3/4" Spring Pin
3	2	03-1556-23	1-3/4 x 7/8 REDUCER
4	1	03-1022-23	Solid Clevis 7/8 x 14
5	1	03-1103-23	7/8-14 Jam Nut
6	1	03-1012-23	Clevis
7	1	03-1198-23	Oval Toggle Base
8	1	03-1013-23	Clevis Toggle
9	2	(CA-0045) or 420-1875-011	(ASM) or Hex Bolt
10	6	03-1121-50	1/4 Flanged Sleeve
11	2	03-1253-50	Tube Bushing 1"
12	3	420-NTE-01	1/4-20 Nylock
13	1	Call	Clamp on Collar 2-3/8
14	1	(CA-0048) or 420-1375-011	(ASM) or Hex Bolt
15	1	03-1252-50	Tube Bushing .375
16	4	420-0875-041	Screw
Tournament Heavy Back Bar (1-3/8")			
#	QTY	Part No	Description
1	1	AL-1375-1125	Tube
3	2	03-1160-23	1-3/16 to 7/8 Reducer



#	QTY	Part No	Description
1	1	03-1532-23	TAPERED BASE TUBE
2	1	03-1533-23	Tapered Intermediate Tube
3	1	03-1041-23	UPPER INTERMEDIATE TUBE
4	1	03-1042-23	1.625 OD x 1.515 ID
5	1	03-1009-23	1.75 OD x 1.640 ID x 192" Drawn Tube
6	1	03-1714-23	TIP SECTION LOWER HEAVY
7	1	03-1715-23	TIP SECTION UPPER HEAVY



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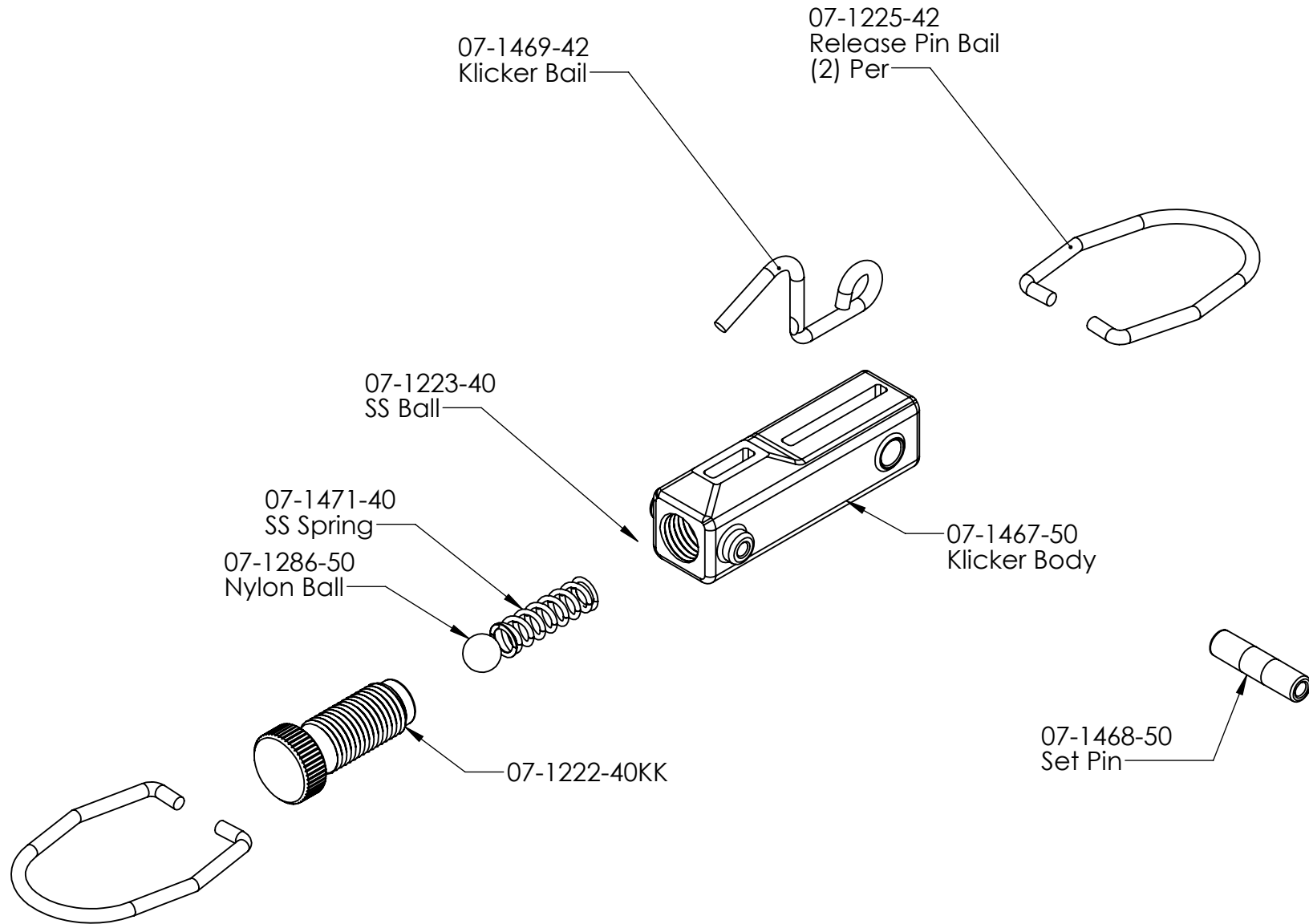
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**CA-0023**  
**Parts Breakdown**

Last Updated 4/20/2020 Sheet 1 of 1



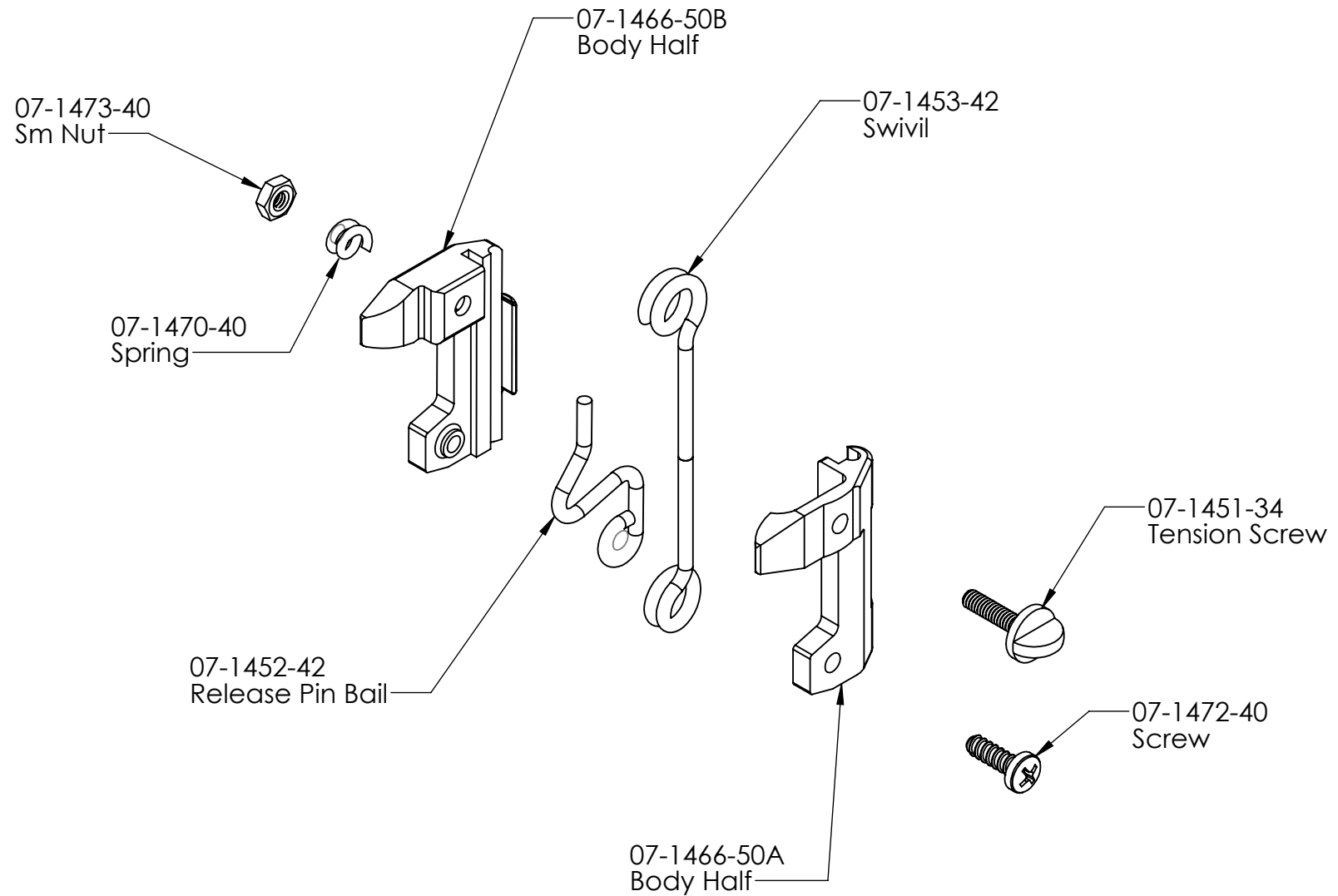
RUPP002186



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**CA-0105**  
**Parts Breakdown**

Last Updated 6/24/2019 Sheet 1 of 1



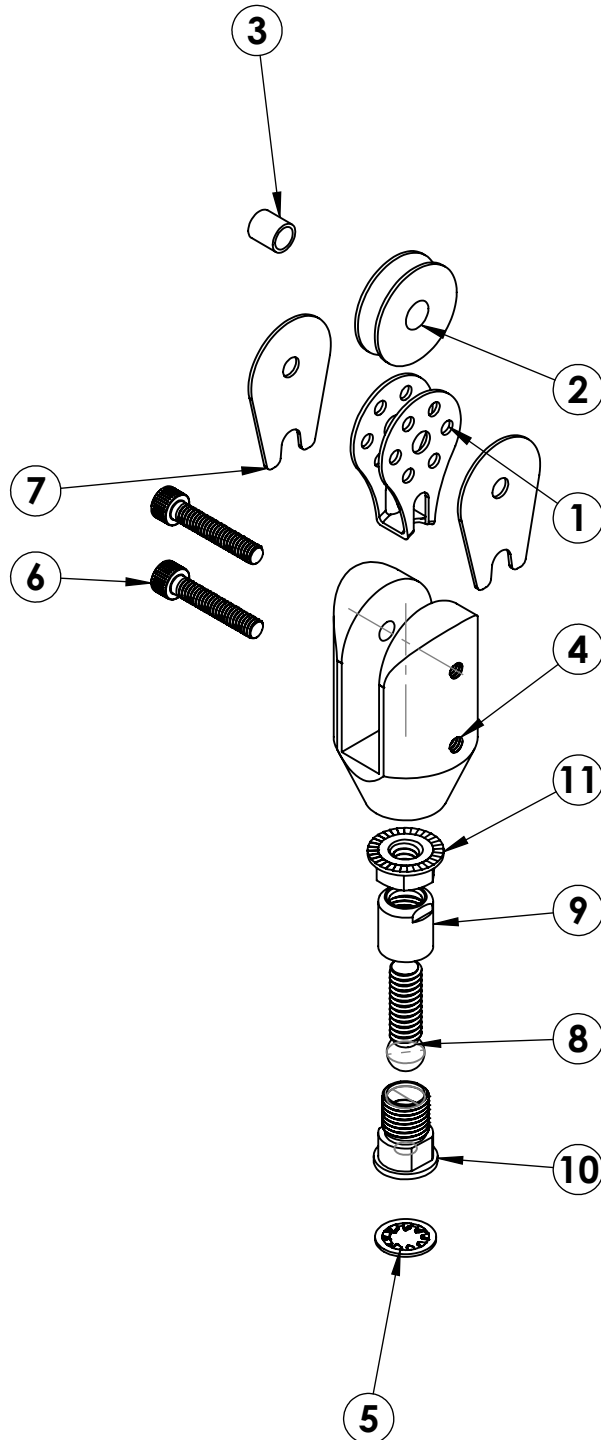
RUPP002187



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## CA-0106 Parts Breakdown

Last Updated 6/24/2019 Sheet 1 of 1



#	QTY	Part No	Description
1	1	04-1288-42	Halyard Pulley Frame
2	1	04-1289-50	PULLEY WHEEL
3	1	04-1290-23	Pulley Bushing
4	1	04-1703-23	Roller Bracket, Single
5	1	04-1709-40	1/4"Int.Tooth Lock Washer, S/S
6	2	04-1710-23	8-32 x 7/8 socket HD MS Alum
7	2	04-1777-50	Washer, Roller Frame
8	1	04-1789-42	Swivel
9	1	04-1790-42	Capture Collar
10	1	04-1791-42	Swivel Base
11	1	420-000-01	1/4-20 Flange Nut

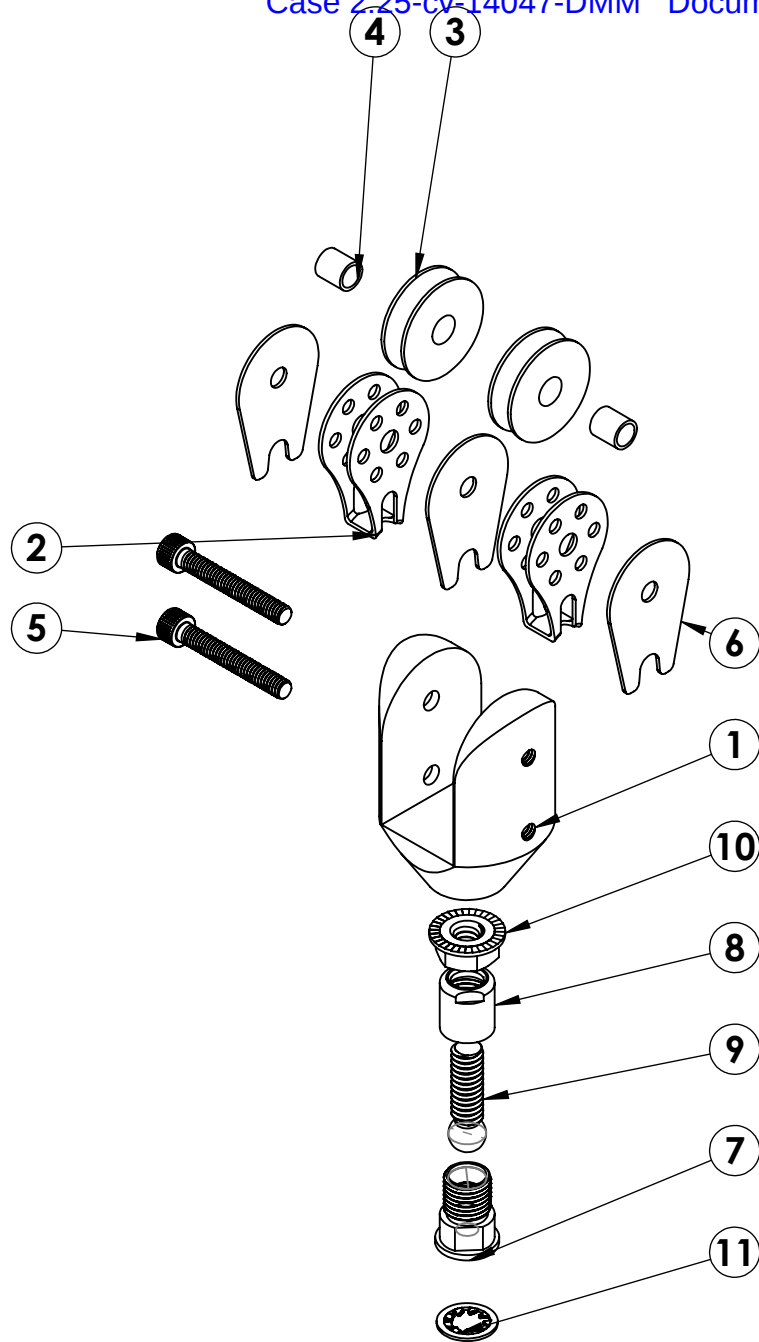
RUPP002188



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**CA-0144**

**Parts Breakdown**



#	Qty	Part No	Description
1	1	01-1702-23	Roller Bracket, Double
2	2	04-1288-42	Halyard Pulley Frame
3	2	04-1289-50	PULLEY WHEEL
4	2	04-1290-23	Pulley Bushing
5	2	04-1711-23	8-32 x 1 1/8 Socket HD MS Alum.
6	3	04-1777-50	Washer, Roller Frame
7	1	04-1791-42	Swivel Base
8	1	04-1790-42	Capture Collar
9	1	04-1789-42	Swivel
10	1	420-000-01	1/4-20 Flange Nut
11	1	04-1709-40	1/4"Int.Tooth Lock Washer, S/S

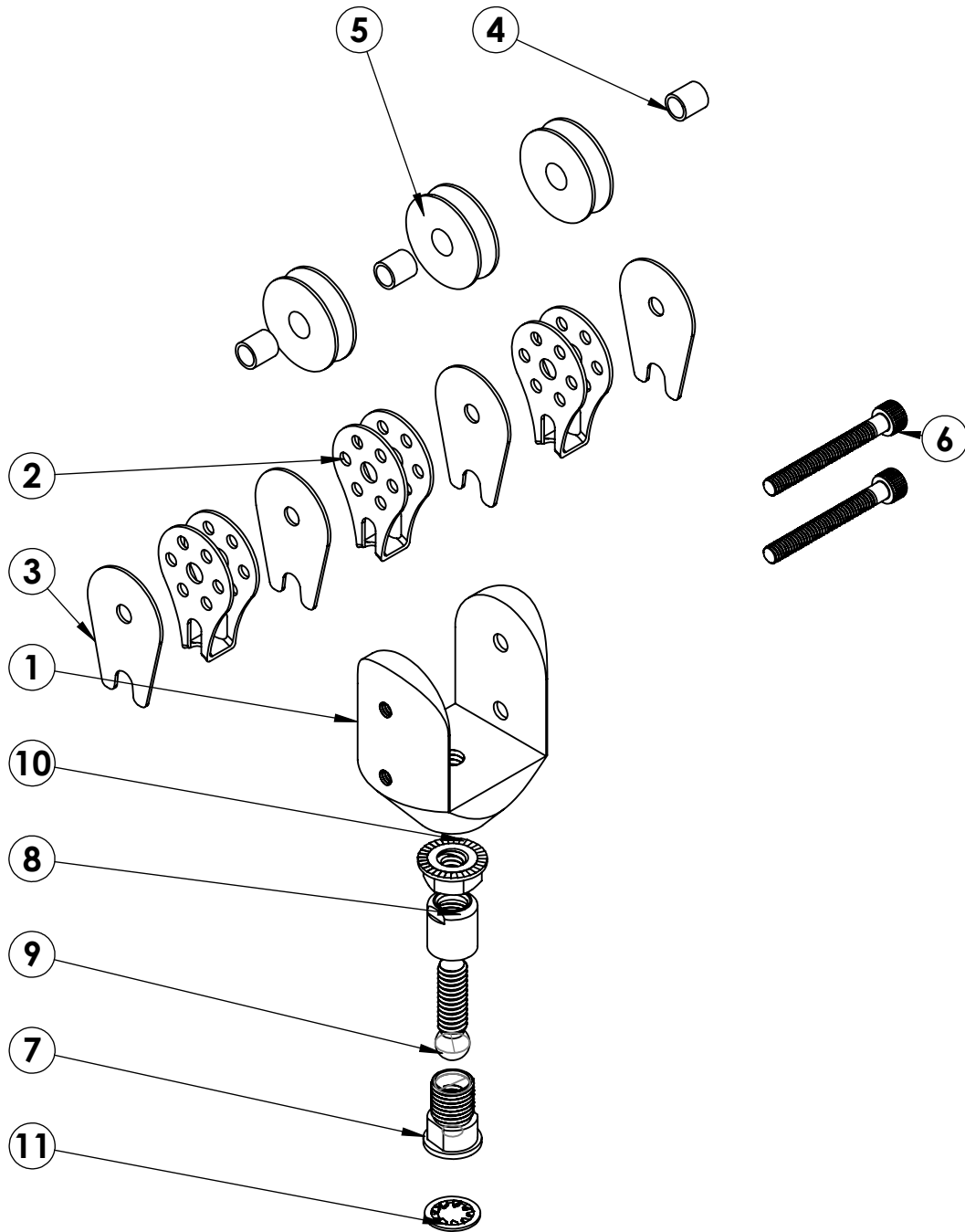
RUPP002189



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**CA-0145**  
**Parts Breakdown**





#	Qty	Part No	Description
1	1	04-1701-23	Roller Bracket, Triple
2	3	04-1288-42	Halyard Pulley Frame
3	4	04-1777-50	Washer, Roller Frame
4	3	04-1290-23	Pulley Bushing
5	3	04-1289-50	PULLEY WHEEL
6	2	04-1712-23	8-32 x 1 3/8 Socket HD MS Alum.
7	1	04-1791-42	Swivel Base
8	1	04-1790-42	Capture Collar
9	1	04-1789-42	Swivel
10	1	420-000-01	1/4-20 Flange Nut
11	1	04-1709-40	1/4\"Int.Tooth Lock Washer, S/S

RUPP002190

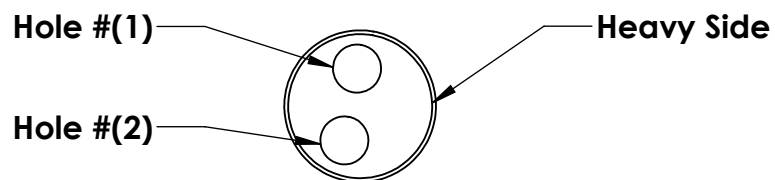


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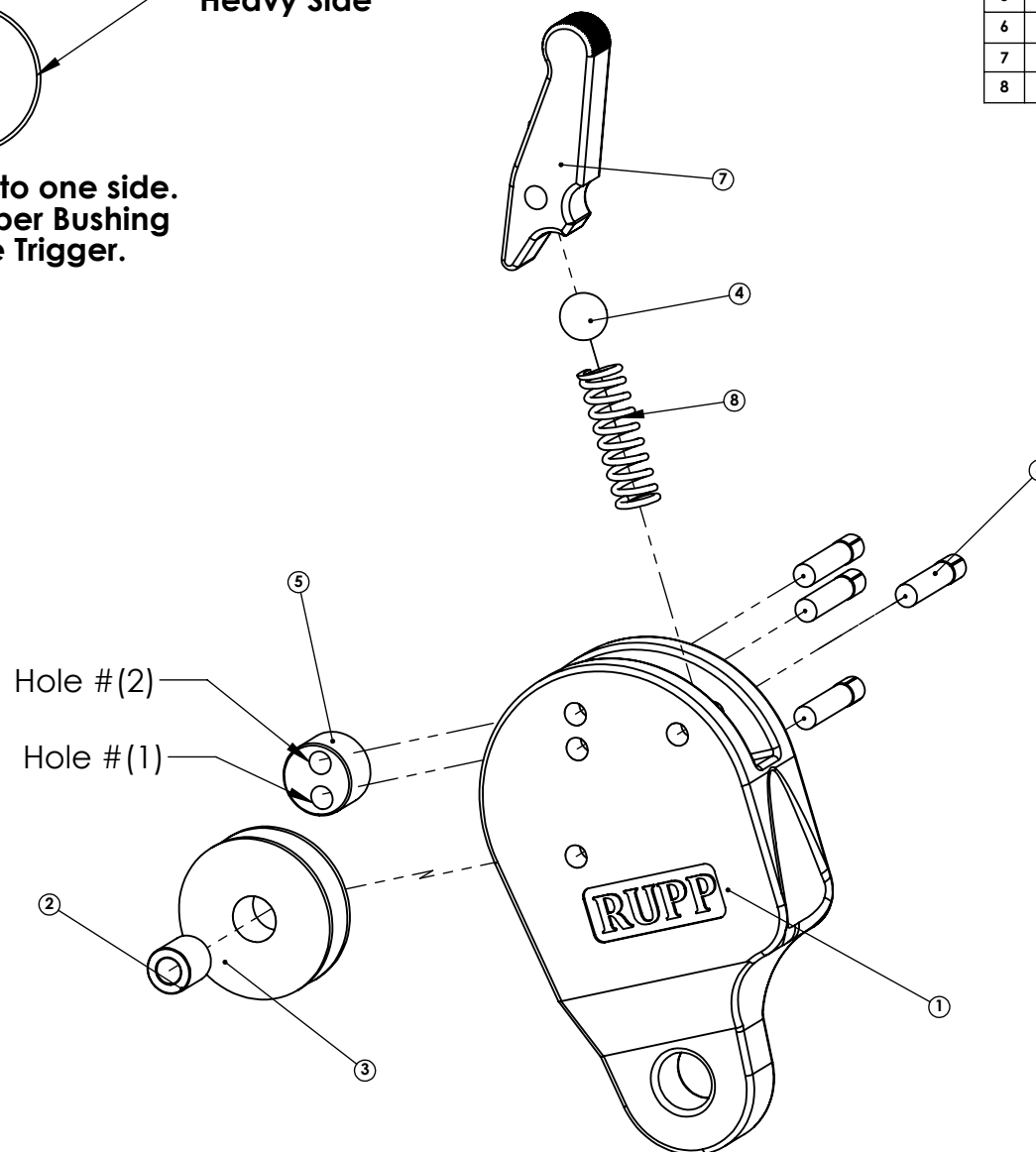
**CA-0146**

**Parts Breakdown**

#	QTY	Part No.	Description
1	1	04-1726-50	HALYARD LOCK BODY
2	1	04-1731-40	Pulley Wheel Bushing, S/S
3	1	04-1289-50	PULLEY WHEEL
4	1	07-1223-40	HALYARD LOCK BALL
5	1	04-1730-70B	Rubber Bushing Grey
6	4	04-1738-40	Driv-Lok Pin "C" Typ
7	1	04-1727-50	HALYARD TRIGGER LOCK
8	1	07-1471-40	Spring



Holes are offset to one side.  
Thin side of Rubber Bushing  
goes toward the Trigger.



**All Pins when inserted should be flush  
on both sides of the body**

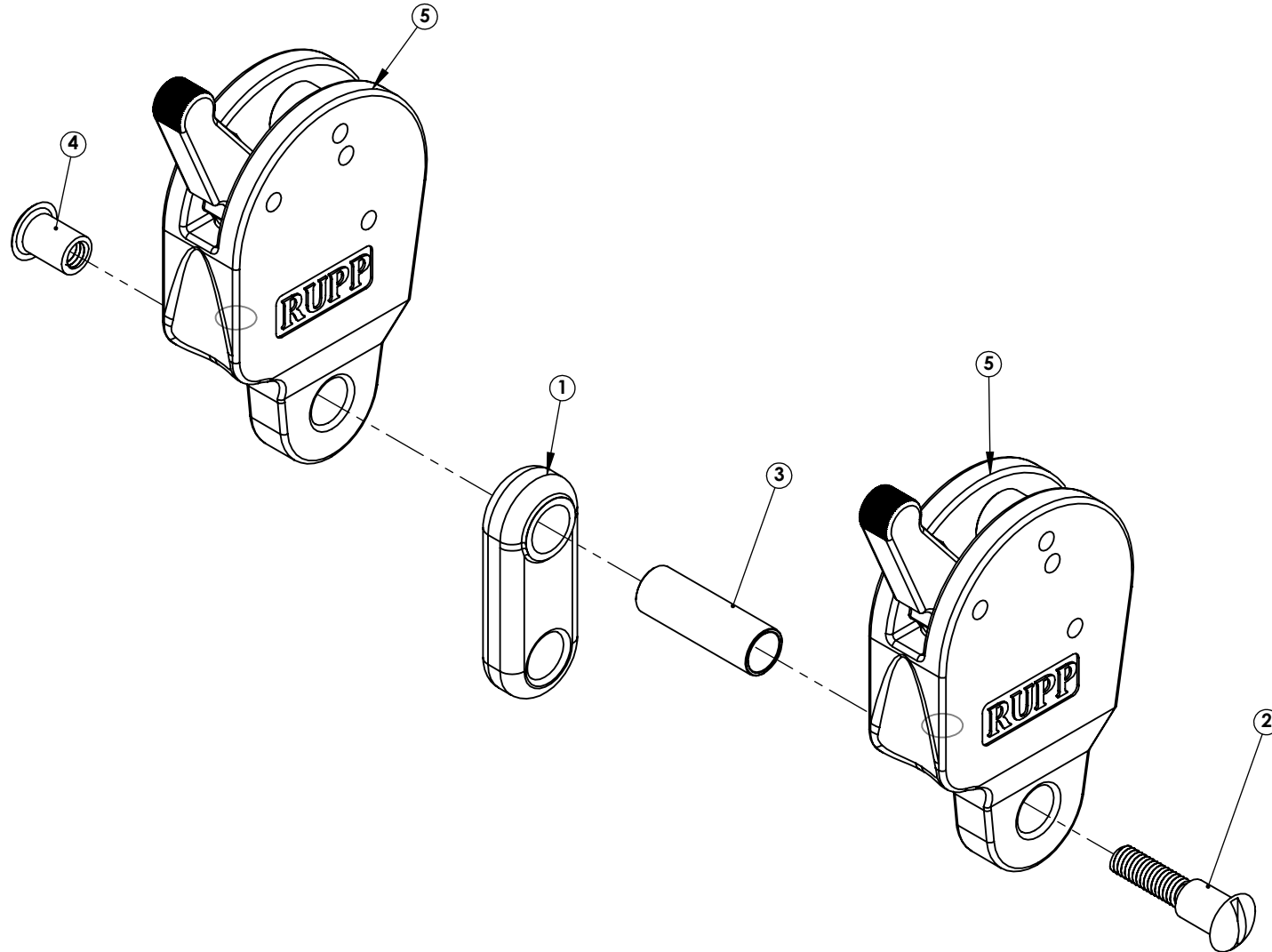


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**CA-0157-1**

**Parts Breakdown**

#	Qty	Part No	Description
1	1	04-1729-50	PLASTIC CLEVIS DOUBLE
2	1	04-1735-42	Shoulder Bolt, Double
3	1	04-1737-42	DOUBLE HALYARD SPACER
4	1	13-1341-40	Haylyard Lock Screw Nut (10-32)
5	2	CA-0157-1	Loc-Up



RUPP002192



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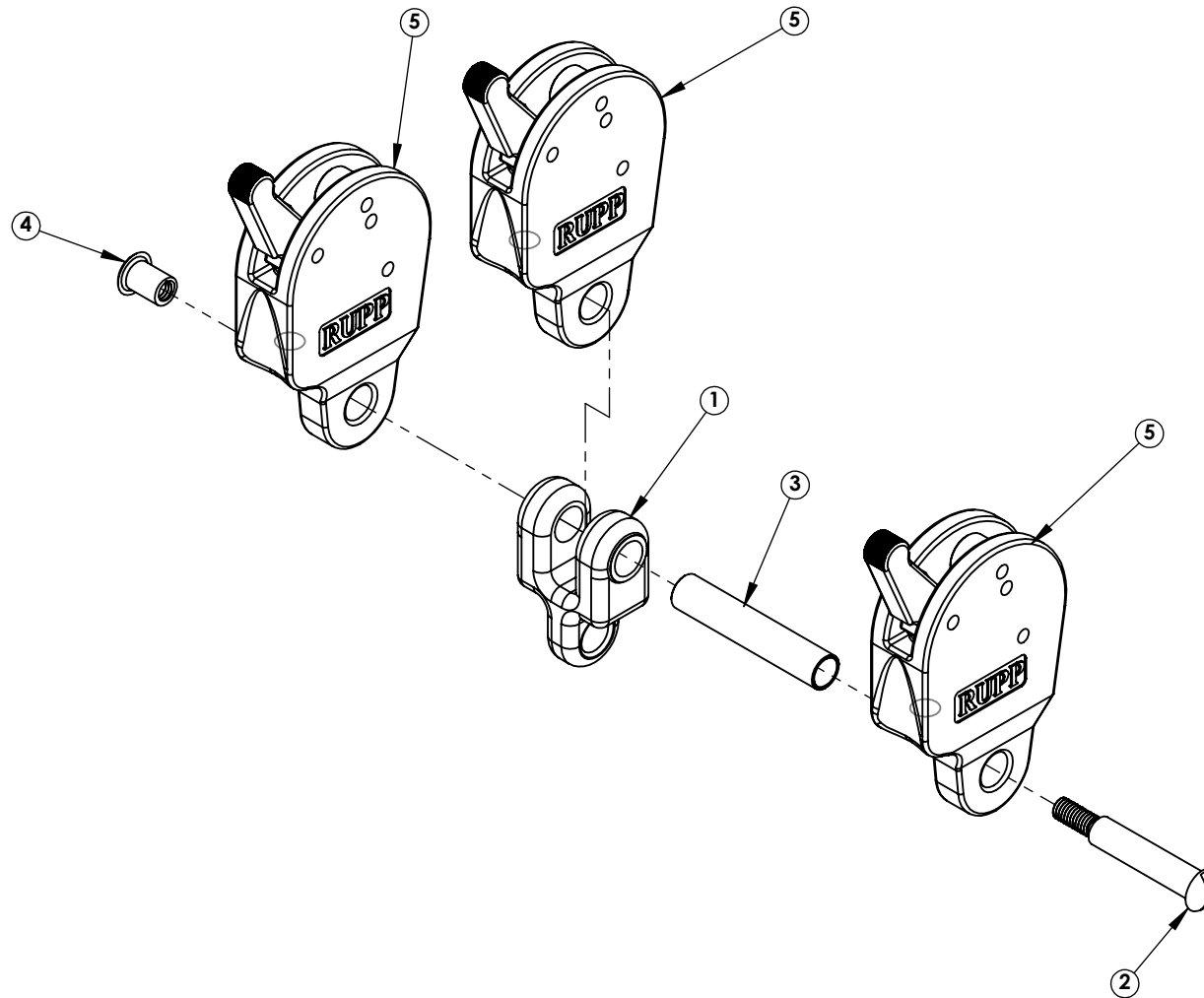
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**CA-0157-2**

**Parts Breakdown**

#	QTY	Part No	Description
1	1	04-1728-50	PLASTIC CLEVIS TRIPLE
2	1	04-1734-42	Shoulder Bolt, Triple
3	1	04-1736-42	TRIPLE HALYARD SPACER
4	1	13-1341-40	Haylyard Lock Screw Nut (10-32)
5	3	CA-0157-1	Loc-Up

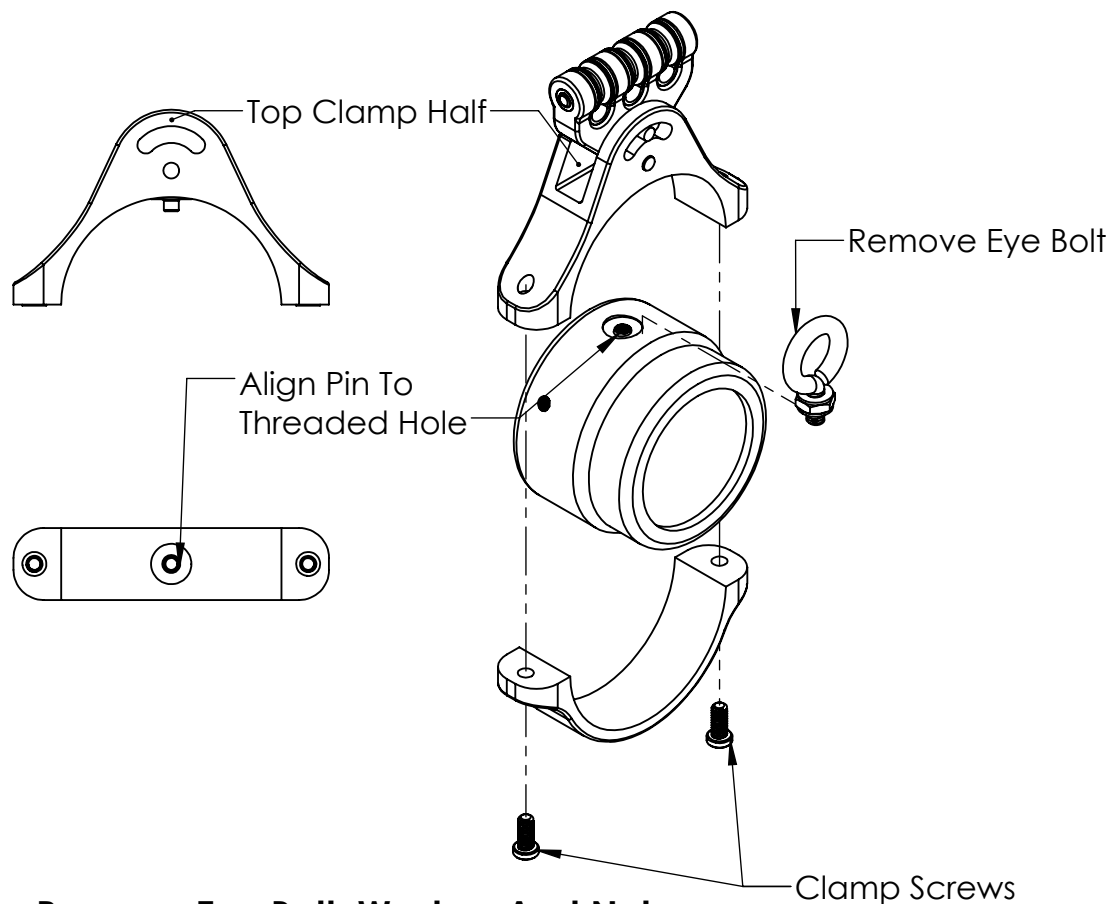


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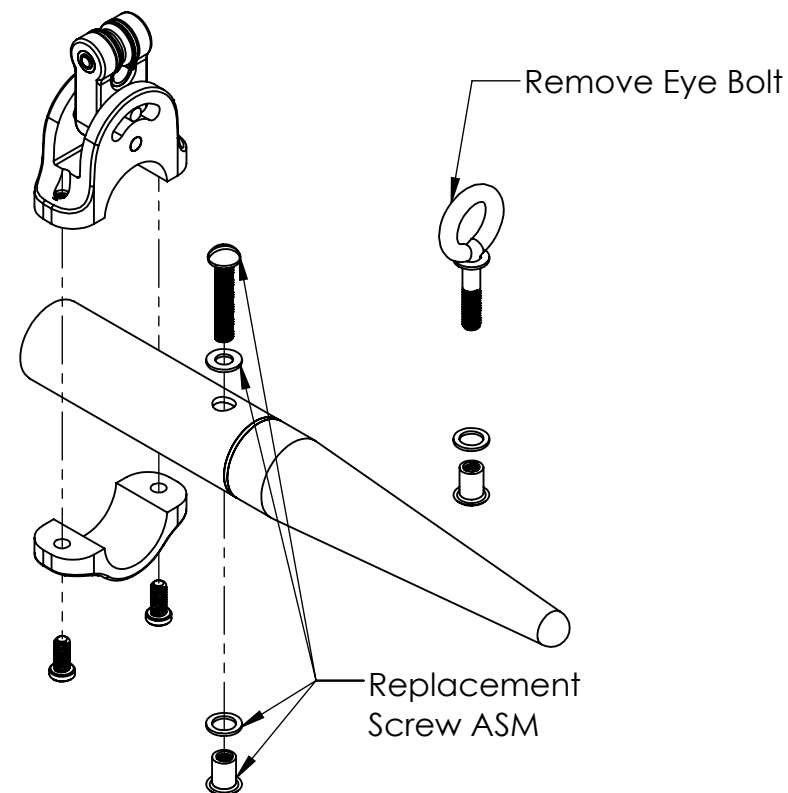


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**CA-0157-3**  
**Parts Breakdown**



**Remove Eye Bolt, Washes And Nut  
Align Pin of the Top Clamp Half  
with threaded hole of Collar and  
Tighten down Clamp Screws**



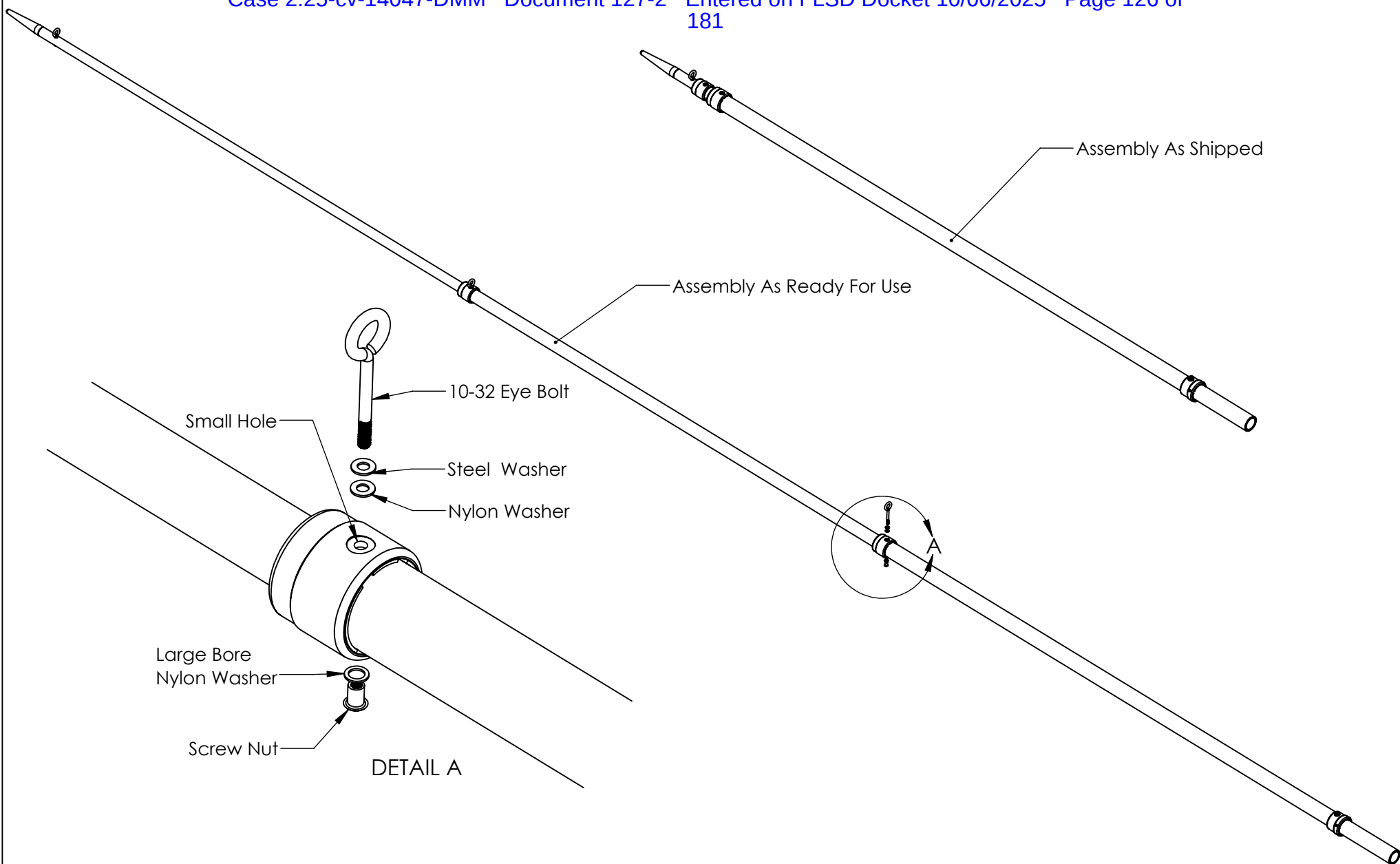
**Remove Eye Bolt, Washes And  
Screw Nut. Replace with provided  
Screw Asm install Clamp ASM,  
Tighten down Clamp Screws**

RUPP002194



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**CFT Pulley Installation**



**ASSEMBLY INSTRUCTIONS:** Tubes ship nested. Slide tubes out until they stop. Align Collars with small hole facing same side as tip eyebolt. Slide washers onto eyebolt and screw nut as indicated in Detail A. Place Loc-Tite® on threads of eyebolt. Insert eyebolt through small hole. Tighten screw nut. Repeat on remaining tube.



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## Fixed Carbon Fiber Instructions

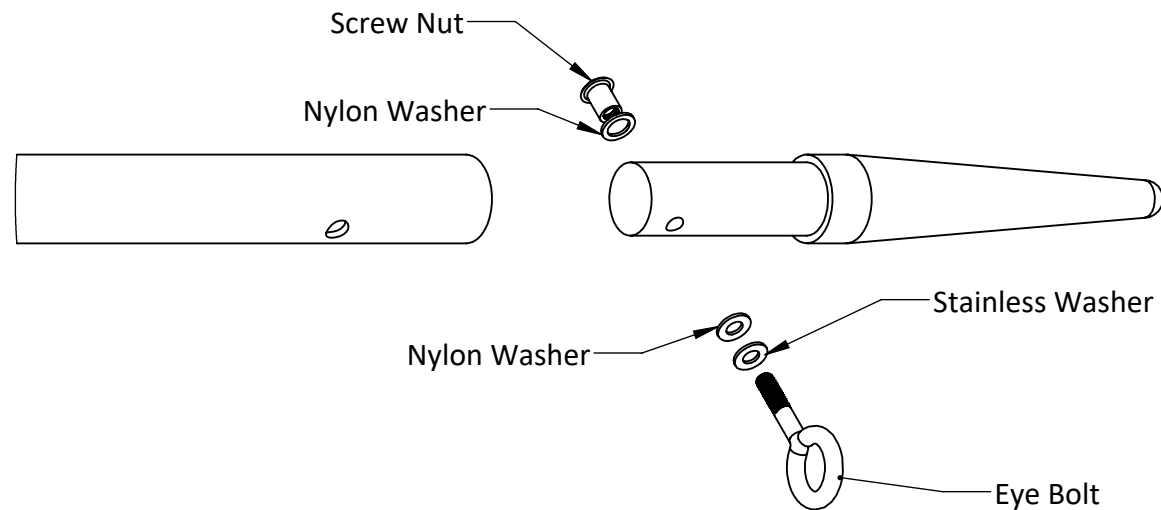
Upon receiving your Rupp aluminum telescoping rigger, you will be required to install the tip point.

Step 1- Insert tip into top of rigger pole .

Step 2- Align hole in tip with hole in pole.

Step 3- Insert eye bolt with stainless steel washer and nylon washer through hole in pole

Step 4- Attach screw nut to eye bolt threads with thread locker(not supplied). Use a flathead screwdriver to tighten while holding eye bolt in desired orientaion.



RUPP002196



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**Tip Install TEL**



RUPP002197

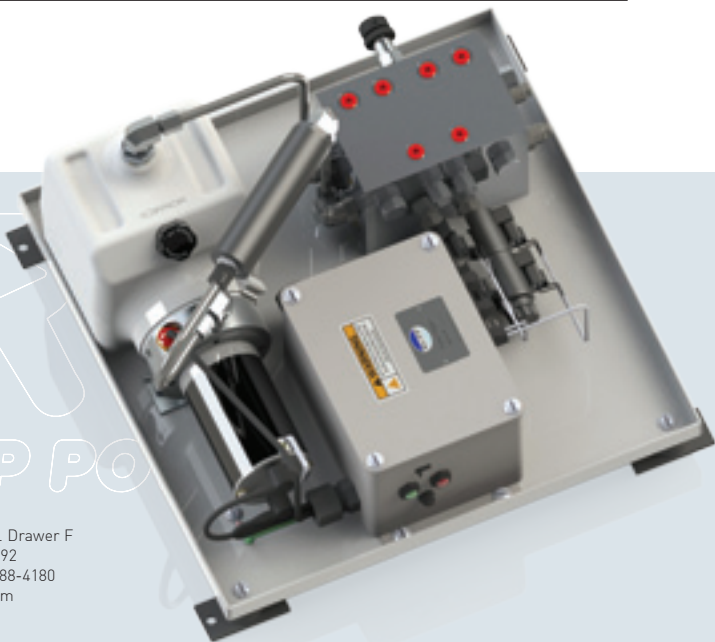


# HYDRAULIC OUTRIGGERS



## TABLE OF CONTENTS

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**RUPP002198**

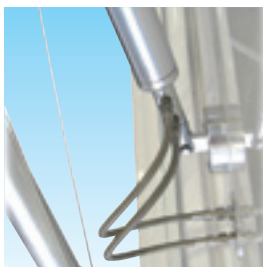
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# RUPP POWER RIGGER PACKAGES

With the push of a button, your Rupp Tournament or Bigg Rigg outriggers can be hydraulically actuated by adding the Rupp Power Rigger™ Package. Available in 110V AC and 24V DC.



**Hydraulic Locking Mechanism**  
(Patent Number: 7,654,214)



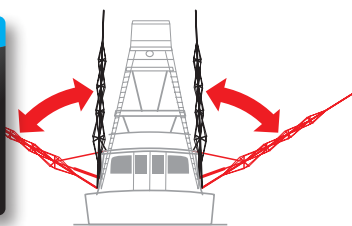
**Anodized Aluminum Cylinders**



**Stainless Steel  
Attachment Hardware**

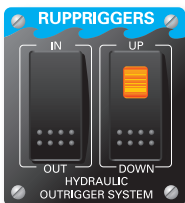
## STANDARD RUPP POWER RIGGERS

Includes two hydraulic cylinders (one port/one starboard) for laying out your outriggers for fishing. The package also includes Rupp's patented hydraulic locking mechanism allowing for push button release of outriggers for fishing and automatic locking upon return to the stowed position.



## DELUXE RUPP POWER RIGGERS

Includes standard package plus two additional cylinders for laying down your outriggers for bridges or other obstacles. Includes Rupp's patented hydraulic locking mechanism allowing for push button release of outriggers for fishing and automatic locking to the stowed position.



**RUPP002199**

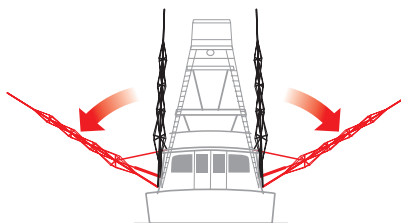
# STANDARD CONTROLS



**IMPORTANT:** Rupp Hydraulic Outriggers are designed to be operated "one at a time" and in a single direction at any given time. In other words, you should be actuating only one rocker switch at any given time. It is especially important to follow these instructions during the retrieval or stowing of the outrigger as sufficient speed is needed to lock the rigger into the hydraulic locking mechanism.

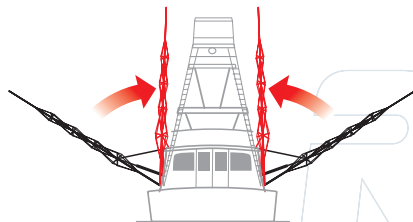
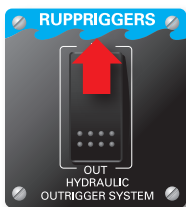
## LAYOUT INSTRUCTIONS

Push and hold the **OUT** button by pressing down on the rocker switch. There is a 3 to 4 second delay until the rigger begins to move away from the boat. For safety reasons the hydraulic circuit does not divert fluid to the layout cylinder until sufficient pressure has been achieved behind the locking mechanism. Failure to hold the button through the required delay will reset the time required to build pressure.



## STOWING INSTRUCTIONS

Push and hold the **IN** button by pressing up on the rocker switch. There is no delay in the retrieval of the outrigger from the layout position so the outrigger will begin to move immediately. Hold the in button until the outrigger firmly engages with the hydraulic locking mechanism. It is strongly recommended that a "positive latching" of the outrigger is confirmed by using your hand to push against the outrigger near the locking collar.



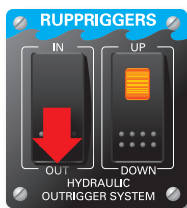
# DELUXE CONTROLS

## LAYBACK INSTRUCTIONS (lowering for bridge clearance/maintenance)

It is imperative to follow the correct sequence when preparing to lay down your outriggers for bridge clearance, cleaning or re-rigging. It is critical that the outriggers be moved **OUT** away from the boat prior to moving the rigger in the **DOWN** direction. By moving the rigger first out away from the vessel, it allows the rigger to be disengaged from the hydraulic locking mechanism. Failure to follow the sequence could result in serious damage to your boat, outriggers and/or hardtop. An optional locking rocker switch may be added to the up/down switch in order to help prompt the user to follow the correct sequence.

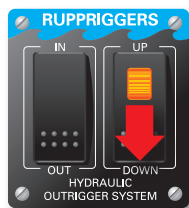
### STEP 1 = OUT

Use **OUT** rocker to move riggers away from the vessel enough to ensure the riggers clear obstructions like the boats hard top and hand rails prior to lowering.



### STEP 2 = DOWN

Release lock (if included) on rocker switch and press **DOWN** to lower riggers. Caution - Riggers will move slightly inboard during the down movement due to system geometry.



**! IMPORTANT:** If riggers are moved fore or aft of original layout position, you must follow the stowing instructions listed below [**STOWING** Instructions (from the laydown position)]. It is advised that you get in the habit of ensuring the riggers are all the way **UP** prior to moving **IN** or stowing. All the way up ensures the locking mechanism is properly aligned prior to stowing.

## STOWING INSTRUCTIONS (from the laydown position)

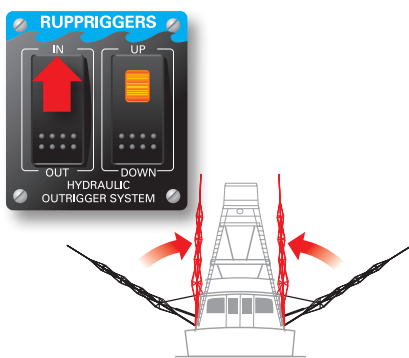
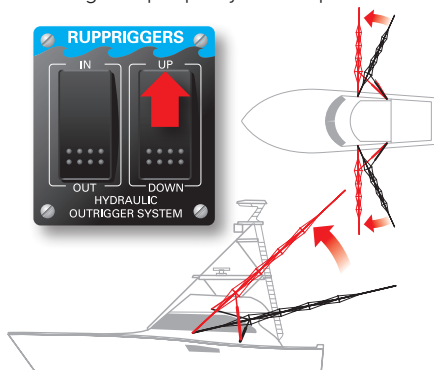
It is imperative to follow the correct sequence when preparing to stow your outriggers from the laydown position. It is critical that the outriggers be moved in the **UP** direction prior to moving the riggers **IN** towards the boat. By moving the rigger all the way up it will ensure the hydraulic locking mechanism will be properly aligned when they move in to the stowed position. Failure to follow the sequence could result in serious damage to your boat, outriggers and/or hardtop. An optional locking rocker switch may be added to the up/down switch in order to help prevent the riggers from inadvertently being moved out of sequence.

### STEP 1 = UP

Release the lock (if included) on **UP** rocker switch and move riggers all the way up until they stop. Full up will ensure locking mechanism is aligned properly for step 2.

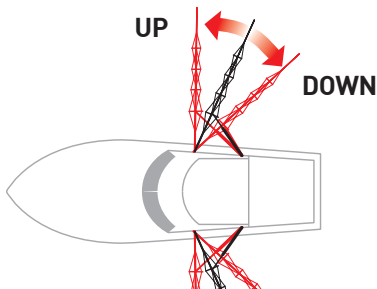
### STEP 2 = IN

Use **IN** rocker switch to move riggers in toward vessel until the hydraulic lock engages. Riggers are now stowed. Confirm a "positive lock"



## FORE / AFT POSITIONING INSTRUCTIONS

A benefit of the deluxe package is the ability for the captain to adjust the outrigger spread during fishing. This is achieved by utilizing the **UP/DOWN** rocker switch after the riggers are fully deployed.



**RUPP002202**

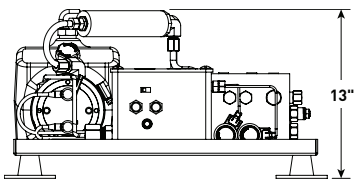
# POWER UNIT CONFIGURATIONS

## POWER UNIT MOUNTING LOCATION

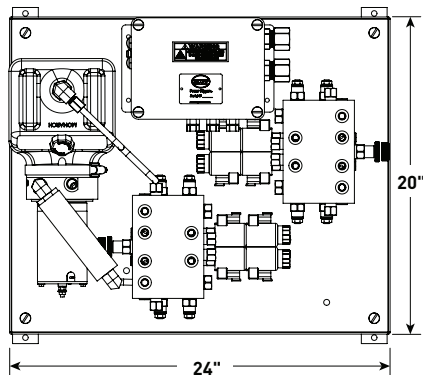
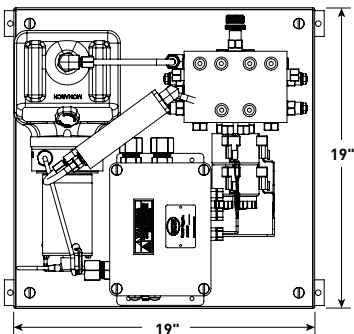
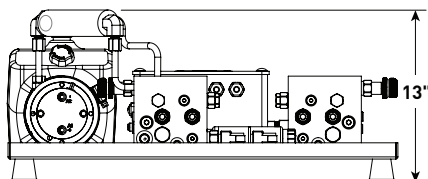
The hydraulic power unit must be mounted in a dry, well ventilated, easily accessible location on or near the bridge of the vessel. A common mounting is in the brow or console on the bridge. Unobstructed access to the power unit bypass valve(s), reservoir cap and electrical enclosure is recommended.

**As with any marine hydraulic system, we recommend that your hydraulic outrigger system be included in your routine system inspections. Inspect for loose wires and fittings, signs of excessive heat as well as leaks on or near the manifold and surrounding area.**

STANDARD POWER UNIT



DELUXE POWER UNIT



**RUPP**  
RUPP POWER RIGGERS

# ATTACHMENT HARDWARE

## **A HEIM JOINT & SPACERS**

Layout cylinders only.

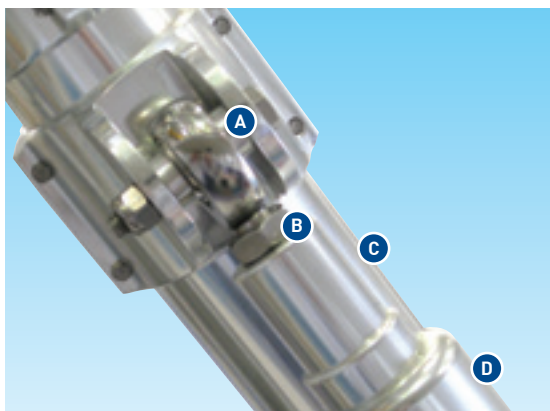
## **B HEIM ADJUSTER**

Layout cylinders only.  
Alters overall cylinder length therefore affecting hydraulic lock function.

## **C HEIM ADAPTER**

Threaded into top of hydraulic cylinders.

## **D HYDRAULIC CYLINDER (top)**



## **E HYDRAULIC CYLINDER (bottom)**

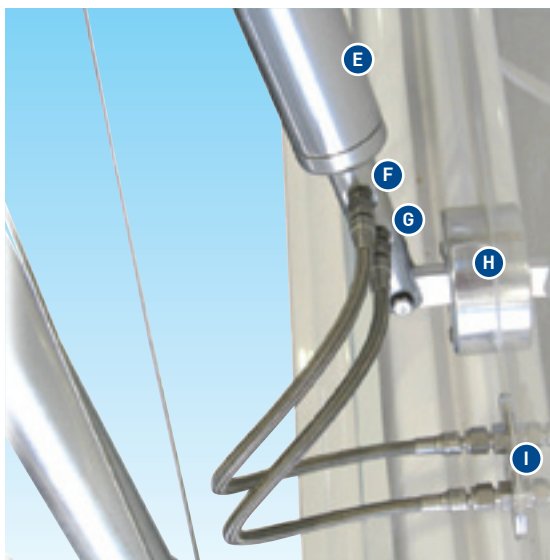
## **F ROD SIDE CYLINDER PORT (IN / DOWN)**

## **G BORE SIDE CYLINDER PORT (OUT / UP)**

## **H SWIVEL PAD**

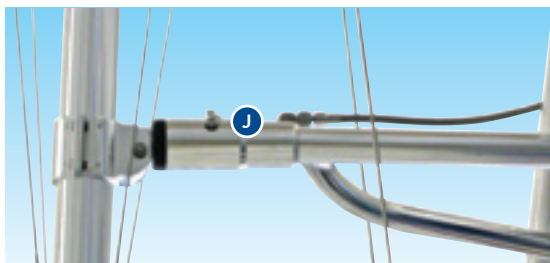
Cylinder

## **I THRU HULL PLATE & FITTINGS - Cylinder**



## **J RUPP AUTO-LOK™**

Assembly Hydraulic Locking mechanism



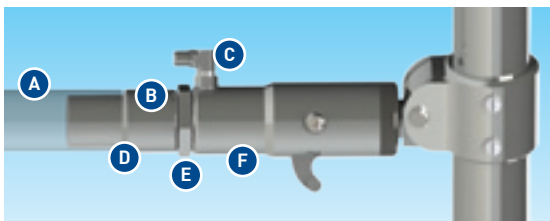
**RUPP002204**

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# BASIC SET-UP PROCEDURES

## MOUNTING INSTRUCTION FOR RUPP HYDRAULIC LOCK

The drawing below shows correct installation for Rupp hydraulic locks. When mounted properly, the trigger will face down. The jam nut supplied with the hydraulic lock assembly allows for quick and easy adjustment and/or repositioning. Correct orientation enables water to easily drain from the lock body and provides for easy trigger access for manual trigger release. Do not weld on or near hydraulic assembly. Thread lock onto assembly after welding.



- A** CUSTOMER SUPPLIED LOCK EXTENSION - 1.25" PIPE
- B** WELD ADAPTER
- C** SS HYDRAULIC HOSE CONNECTION POINT
- D** WELD LOCATION
- E** JAM NUT
- F** HYDRAULIC ASSEMBLY

## ELECTRICAL SYSTEM

**NOTE: All Rupp hydraulic systems are thoroughly tested to ensure the cylinders, wire harnesses and electrical connections all functioned properly prior to shipping.**

Under normal operating conditions the power unit amp draws are as follows:  
 24v DC = 26-28 amps      110v AC = 6-8 amps

### 1. POWER SUPPLY

Rupp power units require a supply and grounding wire be run to the power unit. Consult with a marine electrical expert or ABYC standards to determine proper supply wire size. One of the determining factors will be how far the power unit is positioned from the source current. A properly sized breaker must be placed between the source current and the Rupp power unit (reference amp draw). To hook up the power, remove the electrical enclosure lid and run the positive and negative wires into the electrical enclosure through the threaded compression fitting. Supply wires are to be connected through the bus bar terminal connections.

### 2. GROUNDING

Rupp power units (24v) include a green ground wire which is attached to a grounding lug on the mounting tray. Grounding is recommended. Please consult with a marine electrical expert to determine the best practices for grounding the Rupp Power Rigger system on your particular vessel. Grounding you outriggers separately is also highly recommended.

### 3. BREAKERS

All Rupp units come standard with built-in breakers (DC units use a 30amp shunt breaker, AC units use a dual pole 10amp shunt breaker), mounted in the electrical enclosure. The system and panel breakers must be switched



to the off position prior to servicing the unit. The included breaker is NOT intended to replace the breaker mounted in the vessel's main circuit panel. A GREEN LED indicator will remain lit when the system's integrated breaker is in the off position, indicating the main vessel breaker is still active. If either breaker trips when the system is operated, check for the following:

- A.** Check that a properly sized breaker was used in the main breaker panel.
- B.** Check that the proper gauge power supply wires were run from the panel.
- C.** Check that proper voltage is being supplied to the power unit (AC or DC depending on model)
- D.** Check that system operating pressures do not exceed 850psi.
- E.** Check for signs of excessive heat.
- F.** Check for frayed, abraded or loose supply wires or other loose internal connections. (inside electrical box)

#### **4. LOW VOLTAGE**

Operating direct current (DC) power units efficiently requires proper voltage. Any attempt to operate below the minimum required voltage could cause system failure.

**A.** Signs that point to low voltage are:

- The minimum voltage between the motor stud and ground is 20 volts or less at maximum load conditions.
- The minimum voltage between the valve solenoid power wire (hot wire) and ground is 9.5 volts at maximum load conditions.

**B.** Causes for low voltage are:

- Battery capacity too small
- Cable ends not electrically secure to battery cable
- Battery cable size too small for load and length of run.
- Ground cable size not equivalent or larger than the battery "hotside" cable.
- Bad joints where cable ends are bolted to battery, motor solenoid, start switch, ground, etc.
- Bad contacts on motor solenoid or start switch.

**C.** Note: Check the ground side as well. Paint, rust and dirt are insulators – remove them.

#### **5. WIRE HARNESS**

Your Rupp system comes standard with (2) two 30' wire harness extensions (longer are available upon request). One harness is needed for each switch plate, regardless of package type (standard or deluxe). The harnesses utilize AMP style connectors to screw into the electrical enclosure on the hydraulic pump and operate either Port or Starboard functions. The opposite end of

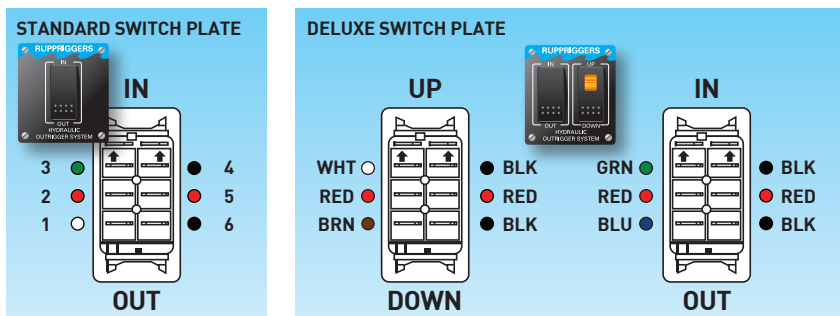
# BASIC SET-UP PROCEDURES

the harness will attach to the rocker switch assembly (see rocker switch wire instructions below). Should you need to remove one of the AMP connectors for installation purposes, please contact Rupp Marine for instructions. It is not recommended that you cut and try to re-solder the harness back together, they should be unpinned.

## 6. ROCKER SWITCHES

All rocker switch assemblies and wire harnesses must be mounted in a dry location, failure to do so can result in premature system failure. Improperly wired rocker switches are a common cause of electrical malfunction. Rocker switch troubleshooting guide:

- Check that the switch circuit breaker (button style) located on the RPR electrical box has not been tripped.
- Unscrew the switch plate and inspect for proper wiring (see diagram).
- Swap Port and Starboard switches by unscrewing AMP connector just behind the switch plates and test.
- Use a circuit "test light" to test switch.
- Plug the switch pigtail AMP connector directly into the AMP connector on the RPR electrical box, in order to rule out an issue with the wire harness extensions.



Rear of plates shown. Circles indicate correct wire color and position.

**NOTE:** All switch control stations should be mounted so that the cord exits the bottom.

Mount in a dry location.

## PLUMBING

### 1. STAINLESS STEEL HYDRAULIC FITTINGS

The Rupp hydraulic outrigger system uses stainless steel fittings. It is imperative that you follow the correct installation procedures to prevent leaking. Contact Rupp Marine if you require a fitting installation guide or you can access one by visiting the following link: <http://www.swagelok.com/downloads/webcatalogs/EN/MS-13-151.PDF>

All of the manifold connections have been 100% leak tested prior to shipping.

## 2. HYDRAULIC HOSE & END FITTINGS

The hose end fittings supplied with your package are manufactured by Swagelok®, and if properly installed are virtually leak-proof at the pre-set operating pressures of the RPR system. The supplied fittings are designed to work with Swagelok thermoplastic hose (7R-4) or industry equivalent. Swagelok® swaging tool and die is required for installation.

**Do not use Teflon tape on hydraulic fittings as it can easily jam valves and plug system filters.**

## 3. MANIFOLD TO CYLINDER CONNECTION

Functional issues will arise from incorrectly plumbing the hydraulic lines. LABEL the hydraulic and electrical lines during the installation process and prior to hookup. For example, make sure the Rod/Bore lines are attached to the correct location on the cylinder. The aluminum manifold on the power unit has Rod/Bore & Lock labels. Keep Port and Starboard lines separate and properly labeled during installation. (see plumbing diagram).

## HYDRAULIC FLUID

When looking for fluids that can be used in the place of the hydraulic pump manufacturer's recommendation of automatic transmission fluid (ATF), or for applications where the operating temperature is outside the range of ATF, the following criteria needs to be considered. A wide variety of hydraulic oils meet these basic criteria.

- A.** Fluid must be compatible with Buna-N sealing compounds.
- B.** The pour point must be below the lowest anticipated temperature that will be encountered.
- C.** The fluid should contain rust and oxidation inhibitors as well as other detergent type inhibitors.

## PRIMING HYDRAULIC CYLINDERS

Until the cylinders are fully primed they WILL NOT hold position (or outrigger weight) and can fall or creep causing harm to an installer, nearby vessel or the outrigger itself.

The following procedure should be followed to ensure proper cylinder priming:

- A.** Close the black system bypass knob located on the hydraulic system manifold block (clockwise to close). Make sure the jam nut does not provide a "false close" by interfering with proper seating. Reference page 14.
- B.** Tie a rope to the outrigger at a length which will allow for roughly 1/2 of the full layout length.

# BASIC SET-UP PROCEDURES

**C.** For boats with the additional laydown cylinders (deluxe package), the back bar (rear) cylinder should be primed first.

**D.** Fill the backside of the cylinders first. Take care to check fluid levels in the hydraulic fluid reservoir during this process. You will need to intermittently add fluid. Do not overfill.

- i. For the layout cylinder this would be the IN function.
- ii. For the back bar cylinder this would be the UP function.

**E.** Once the backside of your cylinders are filled, cycle the unit in both directions using "short strokes", eventually reaching the end of the safety rope. DO NOT layout the outrigger fully on the first cycle. It is recommended that you start with 1-2 foot cylinder strokes in both directions.

**F.** Once 1/2 layout is achieved and the cylinders are holding position, repeat above step for the remaining 1/2 of the layout length.

**G.** When you achieve the full layout for the first time, it is recommended that you hold the rocker switch in the OUT/UP position for 10 seconds, this will force the remaining air from the rod side of the cylinder.

**H.** Fully cycle the outrigger several times to ensure all of the air is bled out of the main cylinders. The presence of air will cause the cylinder to jerk or creep (not hold position). Continue to cycle if any of these symptoms are present.

## Take note of the following:

**The power unit has both an internal (motor) and external thermal cutoff switch. It is possible to trip the internal switch during the priming sequence. If this happens the power unit will shut down and cannot be used. This happens after approximately 3 minutes of continuous use (dependant on ambient temperatures). It takes approximately 10 minutes for the switch to reset; the time can be reduced by placing a fan near the motor on the hydraulic system. Once the thermal switch resets, continue with the priming sequence. To reduce the chances of tripping the internal cutoff it is suggested that the priming sequence be conducted in 1-2 minute intervals, allowing time for the motor to cool between priming sequences.**

## PUMP PRIMING

### NEW INSTALLATIONS

Once the cylinders have been primed, new system installations may also require pump priming to avoid possible pump failure. A hydraulic pump is said to be "primed" when the internal cavity is full (or partially full) of oil and the air has been expelled.

Prime pump as follows:

- Open and close system bypass valve (10 second open)
- "Crack" or remove the bore side cylinder fitting (near bottom of cylinder).
- Power the unit until oil flow is clear (air is absent).
- Retighten or replace bore side fitting.
- Repeat for each cylinder.

**RUPP002209**

## SYSTEM OPERATION

Follow normal operating guidelines by referencing the Standard or Deluxe Controls section of this manual on pages 3 and 4. Take note of the following:

**Your Rupp power unit has both internal (motor) and external (fluid) sensing thermal cutoff switches. The purpose of these switches are to first shut down, then disable the system in the event of an over temperature condition.**

**A.** Internal (motor) thermal cutoff: This switch is set to shut down the motor after approximately 3 minutes of continuous operation, with an auto-reset after approximately 10 minutes. If necessary, the riggers would require manual deployment or retrieval during the cooling cycle. Reference Owner's Manual page 14 for system bypass location.

**B.** External (fluid) sensing thermal cutoff - RED Over-temp Light: The fluid sensor is set to shut down the system by tripping the system breaker and illuminating a RED LED light on the unit's electrical enclosure. This sensor is only activated when the hydraulic fluid temperature becomes elevated. Once tripped, the fluid will need to return to an acceptable temperature (indicated by the RED LED light turning off) before the breaker can be reset. If necessary, the riggers would require manual deployment or retrieval during the cooling cycle. It is important to stop using the hydraulic system and schedule service should you trip the breaker during normal operation. Remove power to the unit by manually tripping the supply (panel) breaker until the unit can be serviced.

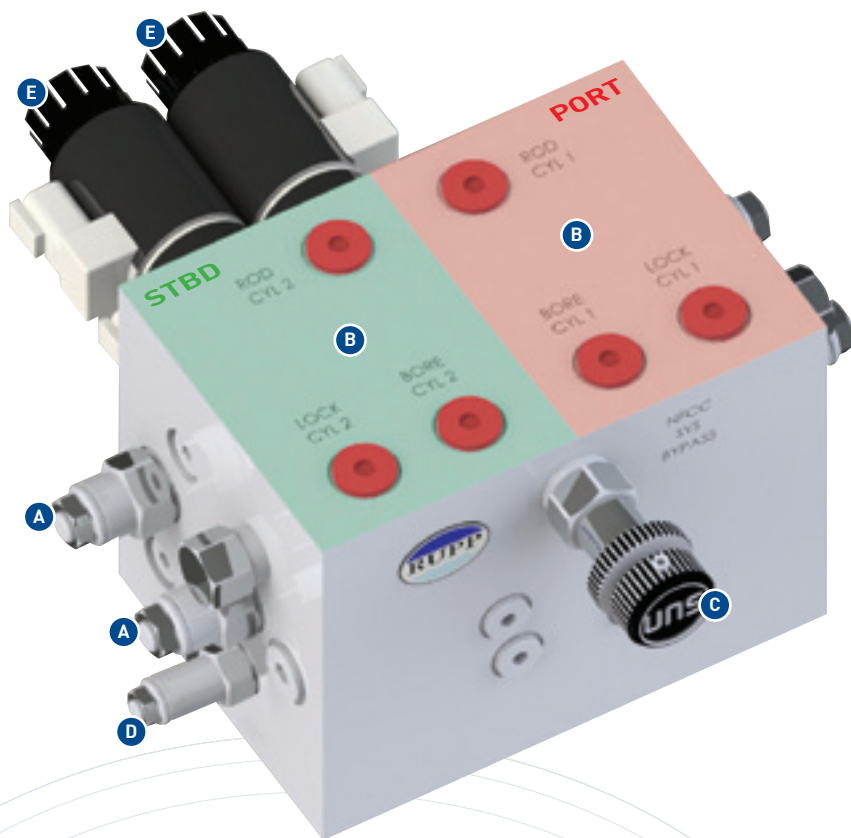
**Important: Tripping the internal (motor) thermal switch during normal use can indicate an issue with one or more of the rocker switches or switch assemblies. Inspect the back of the switches for loose or corroded wires and/or water intrusion. Take care that the switches are not being inadvertently actuated or otherwise being held closed by an obstruction or faulty rocker switch plate. Make sure your switches are not sticking in the closed (on) position.**

**Tripping of the external switch can indicate a more serious issue with the power unit, wiring, or supply voltage. This fluid temperature switch requires the user to manually reset the 30amp breaker. See section B above for details.**

## TIPS AND COMMENTS

- The RPR power unit is designed to be mounted level. Improper mounting will not allow for the pump to adequately suction fluid from the reservoir.
- The unit is also designed to be mounted in a cool, dry location. Typical mounting areas include a climate controlled brow, salon or other interior space. Do not mount the power unit in an area requiring ignition protection; such areas may include the engine room or bilge.
- As with any complex marine hydraulic or electrical system, professional installation is highly recommended. Call Rupp Marine for a listing of approved installation partners.

# HYDRAULIC MANIFOLD



## **A** COUNTERBALANCE VALVES (Factory Set)

1-3/4 turn COUNTER CLOCKWISE from bottom

MANIFOLD LABEL	FUNCTION
CBBA 1	controls PORT <b>IN</b>
CBBA 2	controls PORT <b>OUT</b>
CBBA 3	controls STBD <b>IN</b>
CBBA 4	controls STBD <b>OUT</b>

## B WORKING PORTS

Labeled according to cylinder. (Reference plumbing diagram)

### STANDARD AND DELUXE SYSTEMS

MANIFOLD 1 LABEL	FUNCTION	CYLINDER PLUMBING
ROD CYL 1	PORT IN	ROD (top) fitting on Layout cylinder
BORE CYL 2	PORT OUT	BORE (bottom) fitting on Layout cylinder
LOCK	PORT LOCK	Hydraulic Locking Mechanism
ROD CYL 2	STBD IN	ROD (top) fitting on Layout cylinder
BORE CYL 2	STBD OUT	BORE (bottom) fitting on Layout cylinder
LOCK	STBD LOCK	Hydraulic Locking Mechanism

### DELUXE SYSTEMS ONLY (TWO MANIFOLDS)

MANIFOLD 1 LABEL	FUNCTION	CYLINDER PLUMBING
ROD CYL 1	PORT DOWN	ROD (top) fitting on Back Bar cylinder
BORE CYL 2	PORT UP	BORE (bottom) fitting on Back Bar cylinder
LOCK	PLUGGED	NA
ROD CYL 2	STBD DOWN	ROD (top) fitting on Back Bar cylinder
BORE CYL 2	STBD UP	BORE (bottom) fitting on Back Bar cylinder
LOCK	PLUGGED	NA

Working ports utilize 90° O-ring boss fittings

## C SYSTEM BYPASS (secure riggers before operating)

Designed to bypass hydraulic system in the event of a power failure.

Riggers can be manually deployed or retrieved while the bypass is open.

**Bypass must be fully closed for hydraulic system to function properly.**

Ensure lock nut does not interfere with proper seating of the needle valve. To OPEN valve turn counterclockwise. All cylinders will move freely. Ensure riggers are properly secured prior to opening system bypass.

## D SEQUENCE VALVES – LOCKING MECHANISM

The sequence valves control the amount of pressure applied to the hydraulic locking ram. Factory set or 2 turns COUNTER CLOCKWISE from bottom. Do not tamper with valve settings.

MANIFOLD LABEL	FUNCTION
XEOA-1	Port Hydro-lock control
XEOA-2	Starboard Hydro-lock control



**IMPORTANT:** Damage to the hydraulic locking mechanism can result from an improper sequence valve pressure setting. If properly installed, very little pressure is needed to release the hydraulic lock.

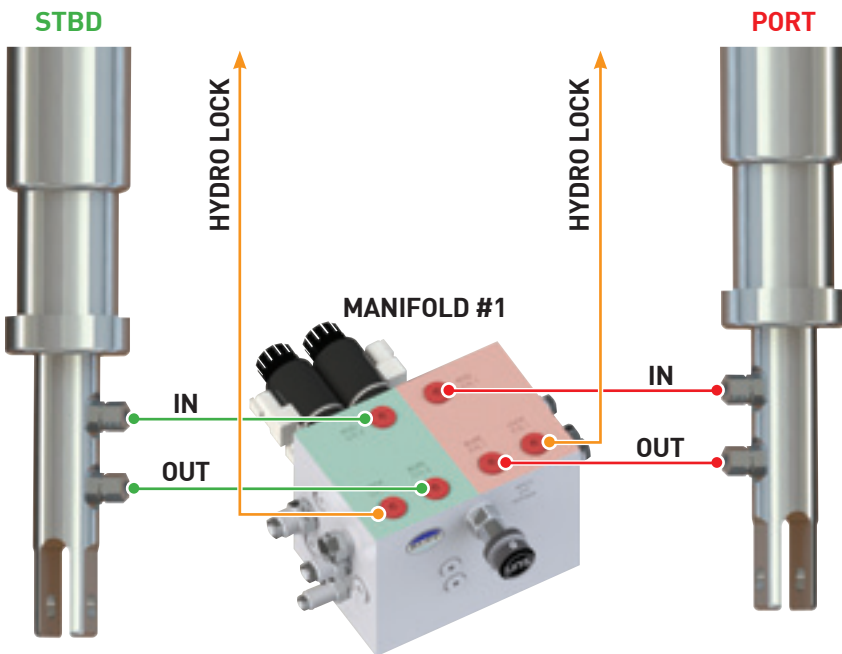
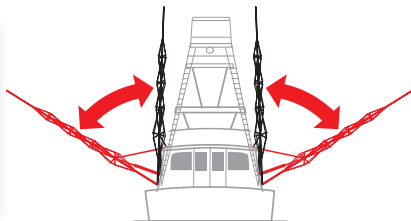
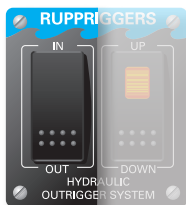
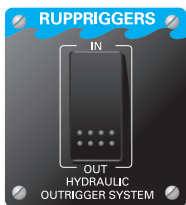
## E SOLENOIDS (Factory Set)

# PLUMBING DIAGRAM



**IMPORTANT:** Care should be taken during installation to ensure hydraulic hose chafing does not occur during vessel operation. Allow for pressure flex.

## IN/OUT DIAGRAM (Standard & Deluxe)

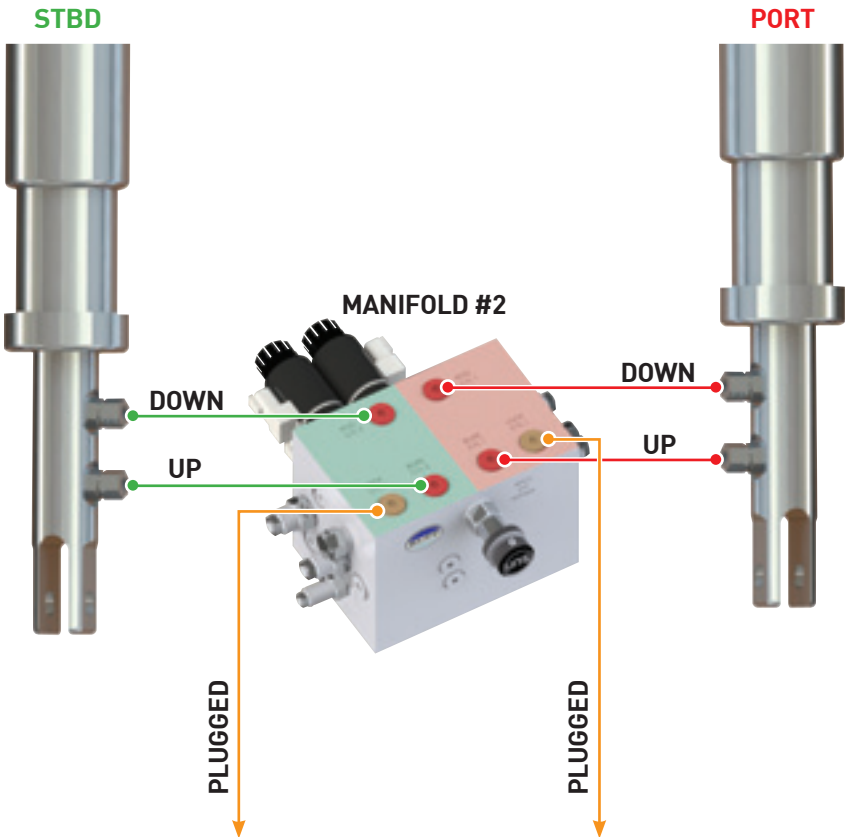
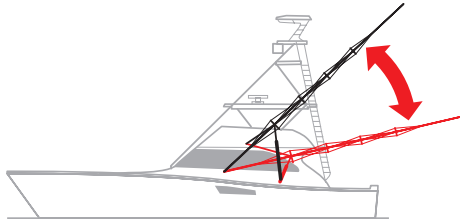
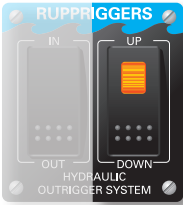






**IMPORTANT:** Care should be taken during installation to ensure hydraulic hose chafing does not occur during vessel operation. Allow for pressure flex.

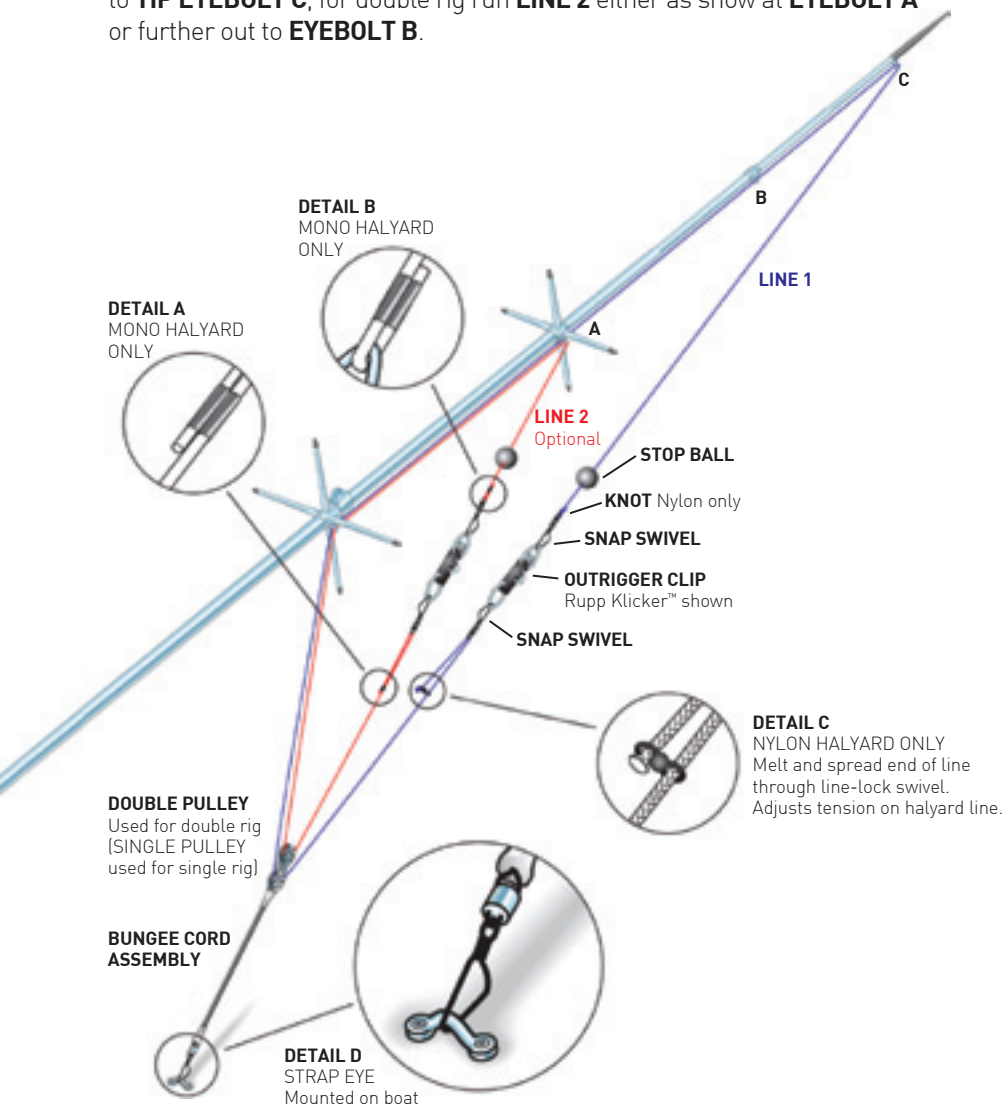
## UP/DOWN DIAGRAM (Deluxe only)



**RUPP002214**

# RIGGING INSTRUCTIONS

Thread white nylon or "mono" halyard lines through eye bolts of rigger and pulleys as shown. Do not use inboard eye bolt on first spreader. Run **LINE 1** to **TIP EYEBOLT C**, for double rig run **LINE 2** either as show at **EYEBOLT A** or further out to **EYEBOLT B**.



**RUPP002215**

# BASIC SYSTEM MAINTENANCE

1. Routine outrigger maintenance should be done in line with manufacturers recommendations. Visit [ruppmarine.com](http://ruppmarine.com) for additional information
2. Inner sleeve of hydraulic rams require fresh water rinse after use, routinely lubricate inner sleeve with Rupp Alumaguard or similar marine aluminum protectant. Excessive salt buildup in this location may cause cylinder to move slowly or bind. Cylinder must be extended to expose inner sleeve.
3. Inspect and top-up hydraulic fluid levels as needed.
4. Hydraulic fluid filter on power unit tray should be changed every 24–36 months dependant on use.
5. Inspect rocker switch assemblies yearly for signs of corrosion by removing them from their mounting position. Inspect the blade connectors and AMP connection; replace switch or pigtail if there are any signs of moisture exposure or evidence of corrosion.
6. Mobile hydraulic applications are subject to shock and vibration. We highly recommend a thorough semi-annual inspection of all hydraulic connection points. This includes all power unit and all thru-hull (bulkhead) fittings. Check for leaks and loose fittings, replace or repair as needed.

## IDENTIFICATION RECORD

**POWER UNIT #**  
(ON ELECTRICAL ENCLOSURE)

**OUTRIGGER SET #**  
(ON BASE OF OUTRIGGER)

Use above serial numbers when contacting  
Rupp Marine for service parts or technical support:

[service@ruppmarine.com](mailto:service@ruppmarine.com)

866-477-2678

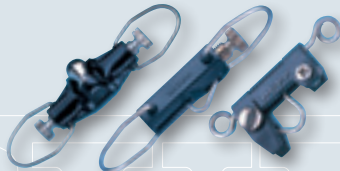
772-286-5300

# NOTES

Entered on FLSD Docket 10/06/2025 181

### RELEASE CLIPS

The ultimate high-performance outrigger release clips. Precision designs provide fisherman with outstanding trolling capabilities. Choose from Rupp's exclusive Nok-Outs®, Klickers® and Zip Clips®.



TYPE	QUANTITY	MODEL #
NOK-OUTS	PAIR	CA-0023
KLICKERS	PAIR	CA-0105
ZIP CLIPS	PAIR	CA-0106

### SINGLE RIGGING KITS

Complete single rigging package will put one line on each outrigger. Kit includes Rupp single pulley shock cords, mounting hardware, halyard lines and your choice of Rupp Release Clips.



RELEASE CLIPS	LINE TYPE	MODEL #
KIT W/ZIP CLIPS	WHITE NYLON	CA-0109
KIT W/KLICKERS	WHITE NYLON	CA-0110
KIT W/NOK-OUTS	WHITE NYLON	CA-0025
KIT W/ZIP CLIPS	BLACK MONO	CA-0109-MO
KIT W/KLICKERS	BLACK MONO	CA-0110-MO
KIT W/NOK-OUTS	BLACK MONO	CA-0025-MO

### DOUBLE RIGGING KITS

Complete rigging packages that allow you to run two (2) lines on each rigger. Kit includes Rupp single pulley shock cords, mounting hardware, halyard lines and your choice of Rupp Release Clips.



RELEASE CLIPS	LINE TYPE	MODEL #
KIT W/ZIP CLIPS	WHITE NYLON	CA-0107
KIT W/KLICKERS	WHITE NYLON	CA-0108
KIT W/NOK-OUTS	WHITE NYLON	CA-0026
KIT W/ZIP CLIPS	BLACK MONO	CA-0107-MO
KIT W/KLICKERS	BLACK MONO	CA-0108-MO
KIT W/NOK-OUTS	BLACK MONO	CA-0026-MO

### PULLEYS & PULLEY CLUSTERS

Original pulleys are high strength, polished stainless steel with Delrin® rollers, available as single or double pulleys for single or double rigging options.

Rupp pulley clusters, eliminate eye-bolt and halyard line chafing by adding a roller pulley in place of each outrigger eye-bolt.



TYPE	MODEL #
SINGLE PULLEY	CA-0027
DOUBLE PULLEY	CA-0028
SINGLE PULLEY CLUSTER	CA-0144
DOUBLE PULLEY CLUSTER	CA-0145
TRIPLE PULLEY CLUSTER	CA-0146

### SHOCK CORD ASSEMBLIES

The ultimate rigging component. Durable 1/4" shock cord secures a stainless steel snap swivel with or without pulleys.

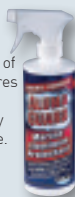


TYPE	MODEL #
SINGLE PULLEY SHOCK CORD	CA-0118
DOUBLE PULLEY SHOCK CORD	CA-0119
MULTI-PURPOSE SHOCK CORD	CA-0120

### ALUMA GUARD®

Forms a protective coating on surfaces, prevents penetration of harmful substances and restores a lasting shine. Guards against pitting and corrosion caused by the harsh effects of marine use. Sold in 16 oz. bottle.

MODEL # CA-0087



### TEASER CLAMPS

Clamp collar with stainless steel eye-bolt. Ideal for locating your teaser line almost anywhere on the outrigger. Available in five diameters, call Rupp if you don't see the size you need. Sold individually.



TUBE O.D.	APPLICATION	MODEL #
1.625"	TR-ABOVE SPREADER 2	CA-0086-TS
1.75"	TR-ABOVE SPREADER 1	CA-0086-T
1.75"	BR-ABOVE SPREADER 2	CA-0086-T
2.00"	TR-BELOW SPREADER 1	03-1154-23T
2.175"	BR-ABOVE SPREADER 1	03-1528-23T
2.375"	BR-BELOW SPREADER 1	03-1531-23T

TR: TOURNAMENT OUTRIGGER  
 BR: BIGG RIGGS OUTRIGGER



Rupp Marine, Inc.  
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 Port Salerno, FL 34992  
 772-286-5300 • Fax 772-288-4180  
 www.ruppmarine.com



**RUPP002218**

Learn more at [ruppmarine.com](http://ruppmarine.com) or call 866-477-2678 • 772-286-5300 • V1012



**POWER RIGGERS**  
**GEN2**  
WITH AUTO DEPLOY

**HYDRAULIC OUTRIGGER OWNER'S MANUAL**

**RUPP002219**



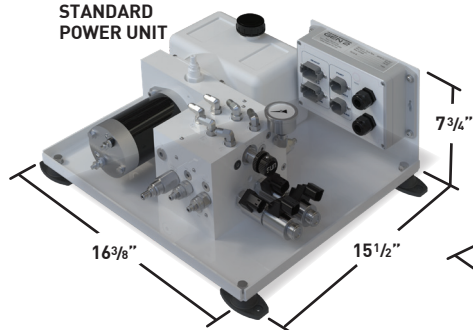
# OWNER'S MANUAL

## POWER RIGGERS GEN 2 WITH AUTO DEPLOY

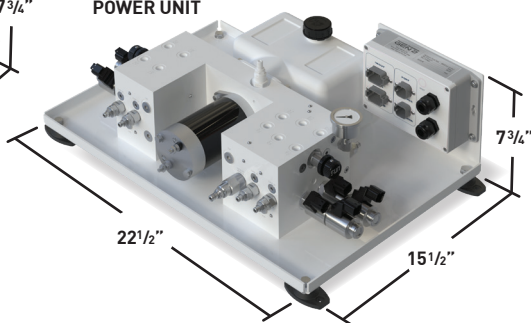
POWER RIGGER PACKAGES	1
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WIRELESS REMOTE CONTROLS	7
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STANDARD POWER RIGGER PLUMBING	9
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ACCESSORIES & RIGGING	16

With the push of a button, your Rupp Tournament or Bigg Rigg outriggers can be hydraulically actuated by adding a 24V DC Rupp Power Rigger™ Package.

**STANDARD  
POWER UNIT**



**DELUXE  
POWER UNIT**



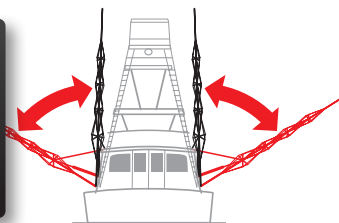
**RUPP002220**

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# POWER RIGGER PACKAGES

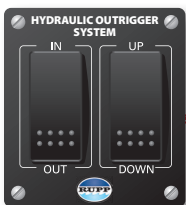
## STANDARD RUPP POWER RIGGERS

Includes two hydraulic cylinders (one port/one starboard) for laying out your outriggers for fishing. The package also includes Rupp's patented hydraulic locking mechanism allowing for push button release of outriggers for fishing and automatic locking upon return to the stowed position.



## DELUXE RUPP POWER RIGGERS

Includes standard package plus two additional cylinders for laying down your outriggers for bridges or other obstacles. Includes Rupp's patented hydraulic locking mechanism allowing for push button release of outriggers for fishing and automatic locking to the stowed position.



## MOUNTING LOCATION

The hydraulic power unit must be mounted in a dry, well ventilated, easily accessible location on or near the bridge of the vessel. A common mounting is in the brow or console on the bridge. Unobstructed access to the power unit bypass valve(s), reservoir cap and electrical enclosure is recommended.

**As with any marine hydraulic system, we recommend that your hydraulic outrigger system be included in your routine system inspections. Inspect for loose wires and fittings, signs of excessive heat as well as leaks on or near the manifold and surrounding area.**

**RUPP002221**



# ATTACHMENT HARDWARE

## A HEIM JOINT & SPACERS

Layout cylinders only.

## B HEIM ADJUSTER

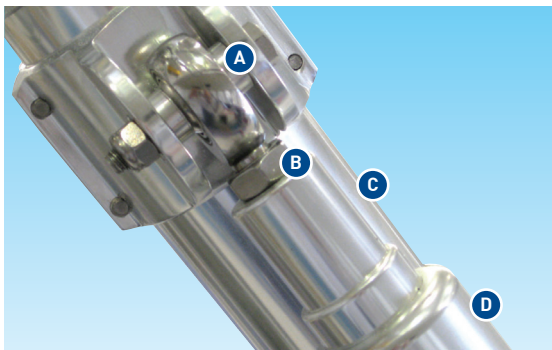
Layout cylinders only.  
Alters overall cylinder length therefore affecting hydraulic lock function.

## C HEIM ADAPTER

Threaded into top of hydraulic cylinders.

## D HYDRAULIC CYLINDER

(top)



## E HYDRAULIC CYLINDER

(bottom)

## F ROD SIDE CYLINDER PORT

(IN / DOWN)

## G BORE SIDE CYLINDER PORT

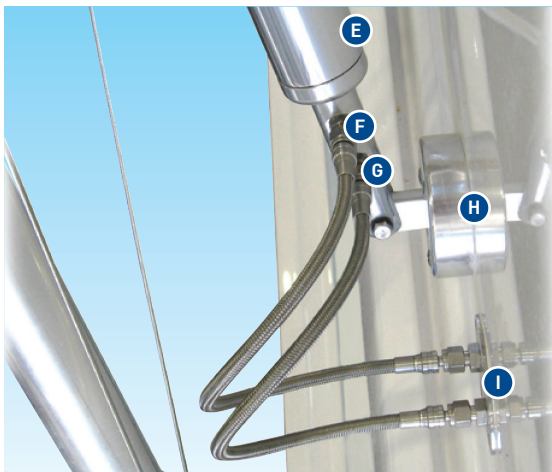
(OUT / UP)

## H SWIVEL PAD

Cylinder

## I THRU HULL PLATE

& FITTINGS – Cylinder



## J CUSTOMER SUPPLIED LOCK EXTENSION - 1.25" Pipe

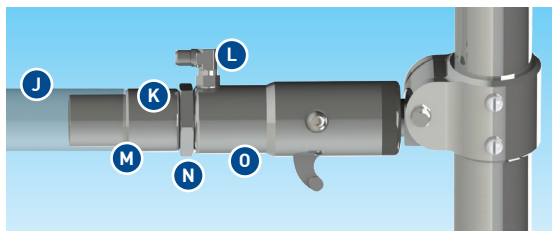
## K WELD ADAPTER

## L SS HYDRAULIC HOSE CONNECTION POINT

## M WELD LOCATION

## N JAM NUT

## O HYDRAULIC ASSEMBLY



## MOUNTING INSTRUCTION FOR RUPP HYDRAULIC LOCK

The drawing above shows correct installation for Rupp hydraulic locks. When mounted properly, the trigger will face down. The jam nut supplied with the hydraulic lock assembly allows for quick and easy adjustment and/or repositioning. Correct orientation enables water to easily drain from the lock body and provides for easy trigger access for manual trigger release. Do not weld on or near hydraulic assembly. Thread lock onto assembly after welding.

# BASIC SET-UP PROCEDURES

## ELECTRICAL SYSTEM

**NOTE: All Rupp hydraulic systems are thoroughly tested to ensure the power unit, cylinders, wire harnesses and electrical connections all functioned properly prior to shipping.**

Under normal operating conditions the power unit amp draws are as follows:  
24v DC = 25 amps

### 1. POWER SUPPLY

Rupp power units require a supply and grounding wire be run to the power unit. Consult with a marine electrical expert or ABYC standards to determine proper supply wire size. One of the determining factors will be how far the power unit is positioned from the source current. A properly sized breaker must be placed between the source current and the Rupp power unit (reference amp draw). The GEN 2 unit is equipped with RED/BLACK leads for the power connection wires, as well as the mating connectors. To hook up the 24vDC supply wires simply stake the supplied connectors onto the supply wires and connect them to the power leads on the electrical enclosure. Opening the electrical enclosure is not necessary and will VOID THE WARRANTY.

- A.** Check that a properly sized breaker was used in the main breaker panel.
- B.** Check that the proper gauge power supply wires were run from the panel.
- C.** Check that proper voltage is being supplied to the 24v DC power unit.
- D.** Check that system operating pressures do not exceed 800 psi.
- E.** Check for signs of excessive heat.
- F.** Check for frayed, abraded or loose supply wires or other loose internal connections. (inside electrical box)

### 2. LOW VOLTAGE

Operating direct current (DC) power units efficiently requires proper voltage. Any attempt to operate below the minimum required voltage could cause system failure.

- A.** Signs that point to low voltage are:
  - The minimum voltage between the motor stud and ground is 20 volts or less at maximum load conditions.
- B.** Causes for low voltage are:
  - Battery capacity too small
  - Cable ends not electrically secure to battery cable
  - Battery cable size too small for load and length of run.
  - Ground cable size not equivalent or larger than the battery "hotside" cable.
  - Bad joints where cable ends are bolted to battery, motor solenoid, start switch, ground, etc.
  - Bad contacts on motor solenoid or start switch.
- C.** Note: Check the ground side as well. Paint, rust and dirt are insulators – remove them.

**RUPP002223**

### 3. WIRE HARNESS

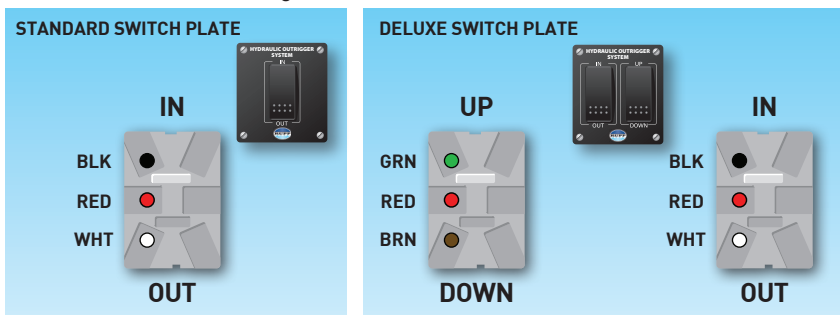
Your Rupp system comes standard with (2) two 40' wire harness extensions (longer are available upon request). One harness is needed for each switch plate, regardless of package type (standard or deluxe). The harnesses utilize Deutsch style connectors to plug into the electrical enclosure on the hydraulic pump and operate either Port or Starboard functions. The opposite end of the harness will attach to the rocker switch assembly (see rocker switch wire instructions below). Should you need to remove one of the Deutsch connectors for installation purposes, please contact Rupp Marine for instructions. It is not recommended that you cut and try to re-solder the harness back together, they should be unpinned.

### 4. ROCKER SWITCHES

All rocker switch assemblies and wire harnesses must be mounted in a dry location, failure to do so can result in premature system failure. Improperly wired rocker switches are a common cause of electrical malfunction.

Rocker switch troubleshooting guide:

- Check that the switch circuit breaker (button style) located on the Gen2 electrical box has not been tripped.
- Unscrew the switch plate and inspect for proper wiring (see diagram).
- Swap Port and Starboard switches and test.
- Use a circuit "test light" to test switch.



Rear of plates shown. Circles indicate correct wire color and position.

**NOTE:** All switch control stations should be mounted so that the cord exits the bottom.

Mount in a dry location.

## PLUMBING



**IMPORTANT:** Gen2 systems require that all hydraulic lines be connected prior to operating the system. Failure to connect any one of the hydraulic lines will render the system inoperable.

### 1. STAINLESS STEEL HYDRAULIC FITTINGS

The Rupp hydraulic outrigger system uses stainless steel fittings. It is imperative that you follow the correct installation procedures to prevent leaking. Contact Rupp Marine if you require a fitting installation guide or

you can access one by visiting the following link: <http://www.swagelok.com/downloads/webcatalogs/EN/MS-13-151.PDF>

All of the manifold connections have been 100% leak tested prior to shipping.

## 2. HYDRAULIC HOSE & END FITTINGS

The hose end fittings supplied with your package are manufactured by Swagelok® or similar, and if properly installed are virtually leak-proof at the pre-set operating pressures of the Gen2 system. The supplied fittings are designed to work with a thermoplastic hose (7R-4) or industry equivalent. Swagelok® swaging tool and die is required for installation. Contact Rupp for further information on a swaging tool or to check out a loaner tool.

**Do not use Teflon tape on hydraulic fittings as it can easily jam valves and plug system filters.**

## 3. MANIFOLD TO CYLINDER CONNECTION

Functional issues will arise from incorrectly plumbing the hydraulic lines. LABEL the hydraulic and electrical lines during the installation process and prior to hookup. For example, make sure the Rod/Bore lines are attached to the correct location on the cylinder. The aluminum manifold on the power unit has Rod/Bore & Lock labels. Keep Port and Starboard lines separate and properly labeled during installation. (see plumbing diagram).

## HYDRAULIC FLUID

We recommend a high-quality, mid-weight hydraulic fluid with rust and oxidation inhibitors. A wide variety of hydraulic oils meet these basic criteria.

- A.** Fluid must be compatible with Buna-N sealing compounds.
- B.** The pour point must be below the lowest anticipated temperature that will be encountered.
- C.** The fluid should contain rust and oxidation inhibitors as well as other detergent type inhibitors.

## PRIMING HYDRAULIC CYLINDERS

Until the cylinders are fully primed they WILL NOT hold position (or outrigger weight) and can fall or creep causing harm to an installer, nearby vessel or the outrigger itself.

The following procedure should be followed to ensure proper cylinder priming:

- A.** Close the black system bypass knob located on the hydraulic system manifold block (clockwise to close). Make sure the jam nut does not provide a "false close" by interfering with proper seating. Reference page 9 or 13.
- B.** Tie a rope to the outrigger at a length which will allow for roughly 1/2 of the full layout length.
- C.** For boats with the additional laydown cylinders (deluxe package), the back bar (rear) cylinder should be primed first.

**D.** Fill the backside of the cylinders first. Take care to check fluid levels in the hydraulic fluid reservoir during this process. You will need to intermittently add fluid. Do not overfill.

- i. For the layout cylinder this would be the IN function.
- ii. For the back bar cylinder this would be the UP function.

**E.** Once the backside of your cylinders are filled, cycle the unit in both directions using "short strokes", eventually reaching the end of the safety rope. DO NOT layout the outrigger fully on the first cycle. It is recommended that you start with 1-2 foot cylinder strokes in both directions.

**F.** Once 1/2 layout is achieved and the cylinders are holding position, repeat above step for the remaining 1/2 of the layout length.

**G.** When you achieve the full layout for the first time, it is recommended that you hold the rocker switch in the OUT/UP position for 10 seconds, this will force the remaining air from the rod side of the cylinder.

**H.** Fully cycle the outrigger several times to ensure all of the air is bled out of the main cylinders. The presence of air will cause the cylinder to jerk or creep (not hold position). Continue to cycle if any of these symptoms are present.

## **PUMP PRIMING**

### **NEW INSTALLATIONS**

Once the cylinders have been primed, new system installations may also require pump priming to avoid possible pump failure. A hydraulic pump is said to be "primed" when the internal cavity is full (or partially full) of oil and the air has been expelled.

Prime pump as follows:

- Open and close system bypass valve (10 second open)
- "Crack" or remove the bore side cylinder fitting (near bottom of cylinder).
- Power the unit until oil flow is clear (air is absent).
- Retighten or replace bore side fitting.
- Repeat for each cylinder.

### **SYSTEM OPERATION**

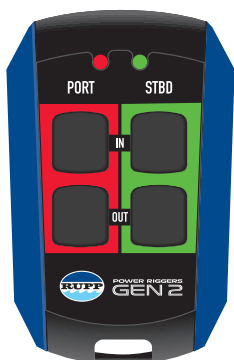
Follow normal operating guidelines by referencing the Standard or Deluxe Controls section of this manual on pages 1. Take note of the following:

**Internal cutoff:** This unit is set to shut down the motor after approximately 3 minutes of continuous operation, with an auto-reset after approximately 10 minutes. If necessary, the riggers would require manual deployment or retrieval during the cooling cycle. Reference Owner's Manual page 9 for system bypass location.

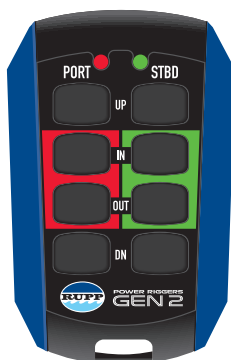
## TIPS AND COMMENTS

- The Gen2 power unit is designed to be mounted level. Improper mounting will not allow for the pump to adequately suction fluid from the reservoir.
- The unit is also designed to be mounted in a cool, dry location. Typical mounting areas include a climate controlled brow, salon or other interior space. Do not mount the power unit in an area requiring ignition protection; such areas may include the engine room or bilge.
- As with any complex marine hydraulic or electrical system, professional installation is highly recommended. Call Rupp Marine for a listing of approved installation partners.

## WIRELESS REMOTE CONTROLS



**STANDARD PACKAGE  
WIRELESS REMOTE CONTROL**



**DELUXE PACKAGE  
WIRELESS REMOTE CONTROL**

Your Gen2 system may come equipped with wireless remote controls. The remotes have been paired with your unit.

Keep the remotes in a location where they cannot be accidentally activated by a user or obstruction. The remotes come with a USB charging cord and should be charged prior to the first use and from time-to-time thereafter. A low charge will effect the transmitting range of the remotes.

Double clicking the buttons on the remote will activate AutoDeploy/ AutoRetrieve functionality, any press in the opposite direction will stop the outrigger movement.

Although these wireless remotes have been proven effective on most vessels, we cannot guarantee they will work in every application. The connectivity depends greatly on several factors outside of our control. Those factors include:

- Location of power unit.
- Construction materials used and size of vessel.
- Location of transmitter in relation to bulkheads and other obstruction.

**RUPP002227**

# STANDARD POWER RIGGER CONTROLS



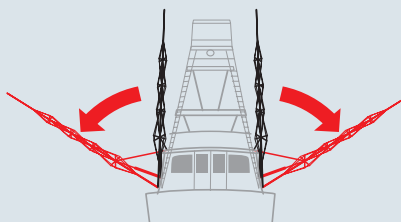
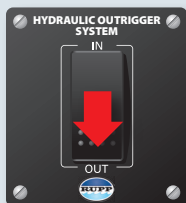
**IMPORTANT:** Rupp Hydraulic Outriggers are designed to be operated “one at a time” and in a single direction at any given time. In other words, you should be actuating only one rocker switch at any given time. It is especially important to follow these instructions during the retrieval or stowing of the outrigger as sufficient speed is needed to lock the rigger into the hydraulic locking mechanism.

Your hydraulic system is equipped with our AutoDeploy feature. Double click the rocker switch in the desired direction and the outrigger with deploy or stow automatically. Pressing any switch in the opposite direction will STOP the function. AutoDeploy works from the rocker switches as well as the wireless remote.

**AUTO  
DEPLOY**

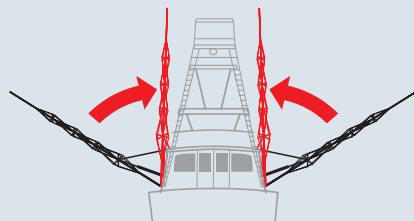
## DEPLOY (LAYOUT) INSTRUCTIONS

Push and hold the **OUT** button by pressing down on the rocker switch. There is a 3 to 4 second delay until the rigger begins to move away from the boat. For safety reasons the hydraulic circuit does not divert fluid to the layout cylinder until sufficient pressure has been achieved behind the locking mechanism. Failure to hold the button through the required delay will reset the time required to build pressure.



## STOW INSTRUCTIONS

Push and hold the **IN** button by pressing up on the rocker switch. There is no delay in the retrieval of the outrigger from the layout position so the outrigger will begin to move immediately. Hold the in button until the outrigger firmly engages with the hydraulic locking mechanism. It is strongly recommended that a “positive latching” of the outrigger is confirmed by using your hand to push against the outrigger near the locking collar.

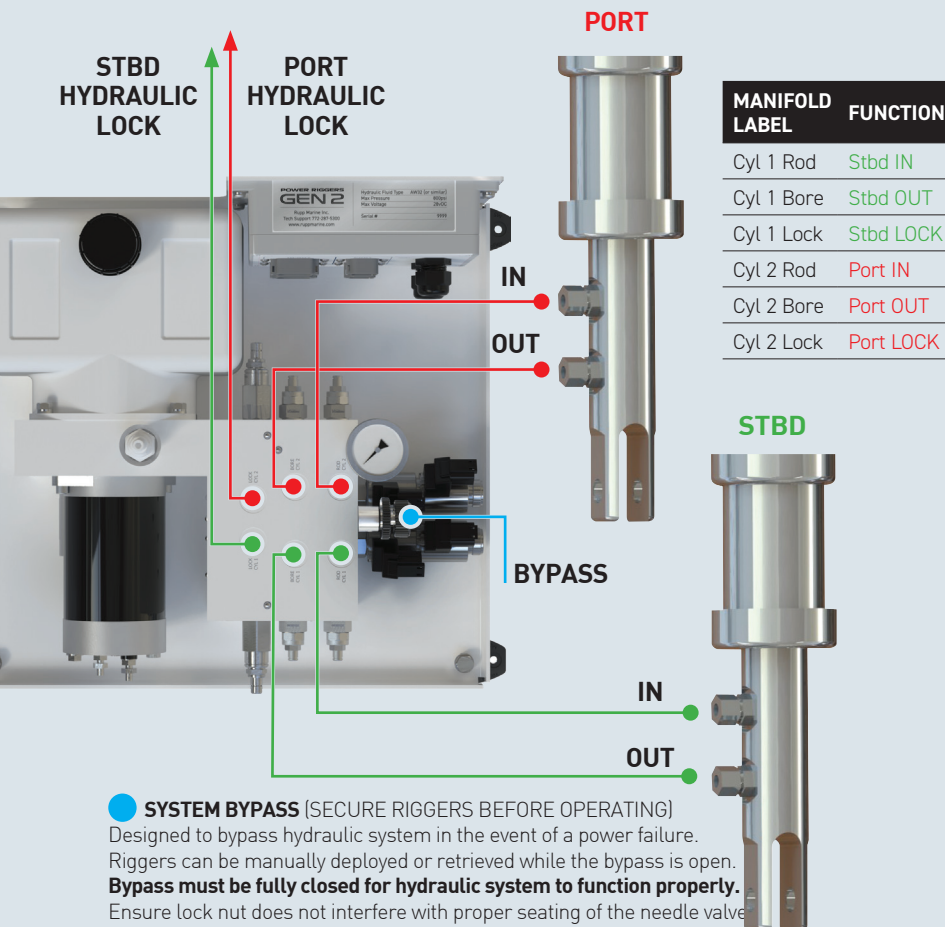
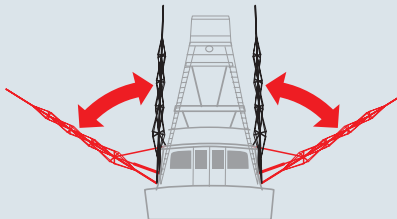


**RUPP002228**

# STANDARD POWER RIGGER PLUMBING



**IMPORTANT:** Care should be taken during installation to ensure hydraulic hose chafing does not occur during vessel operation. Allow for pressure flex.



## ● SYSTEM BYPASS (SECURE RIGGERS BEFORE OPERATING)

Designed to bypass hydraulic system in the event of a power failure.

Riggers can be manually deployed or retrieved while the bypass is open.

**Bypass must be fully closed for hydraulic system to function properly.**

Ensure lock nut does not interfere with proper seating of the needle valve.

To OPEN valve turn counterclockwise. All cylinders will move freely.

Ensure riggers are properly secured prior to opening system bypass.

**ALL UNMARKED COMPONENTS ARE FACTORY SET (DO NOT TOUCH)**

Counterbalance Valves, Sequence Valves, and Solenoids

**RUPP002229**

Learn more at [ruppmarine.com](http://ruppmarine.com) or call 866-477-2678 • 772-286-5300 • V090924



# DELUXE POWER RIGGER CONTROLS



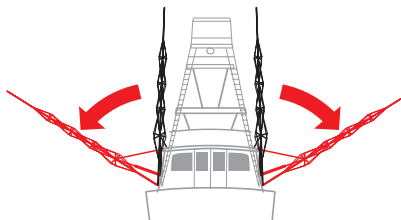
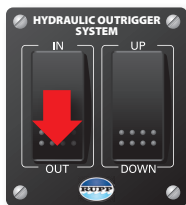
**IMPORTANT:** Rupp Hydraulic Outriggers are designed to be operated “one at a time” and in a single direction at any given time. In other words, you should be actuating only one rocker switch at any given time. It is especially important to follow these instructions during the retrieval or stowing of the outrigger as sufficient speed is needed to lock the rigger into the hydraulic locking mechanism.

Your hydraulic system is equipped with our AutoDeploy feature. Double click the rocker switch in the desired direction and the outrigger with deploy or stow automatically. Pressing any switch in the opposite direction will STOP the function. AutoDeploy works from the rocker switches as well as the wireless remote.

**AUTO  
DEPLOY**

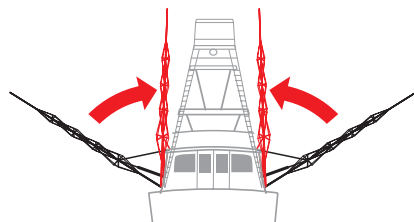
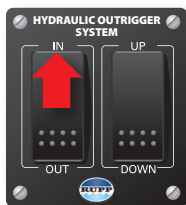
## DEPLOY (LAYOUT) INSTRUCTIONS

Push and hold the **OUT** button by pressing down on the rocker switch. There is a 3 to 4 second delay until the rigger begins to move away from the boat. For safety reasons the hydraulic circuit does not divert fluid to the layout cylinder until sufficient pressure has been achieved behind the locking mechanism. Failure to hold the button through the required delay will reset the time required to build pressure.



## STOW INSTRUCTIONS

Push and hold the **IN** button by pressing up on the rocker switch. There is no delay in the retrieval of the outrigger from the layout position so the outrigger will begin to move immediately. Hold the in button until the outrigger firmly engages with the hydraulic locking mechanism. It is strongly recommended that a “positive latching” of the outrigger is confirmed by using your hand to push against the outrigger near the locking collar.

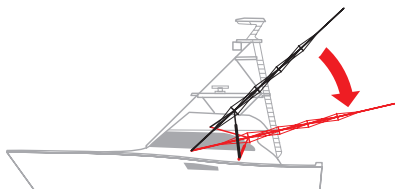
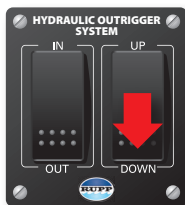


**RUPP002230**

## LAYDOWN INSTRUCTIONS

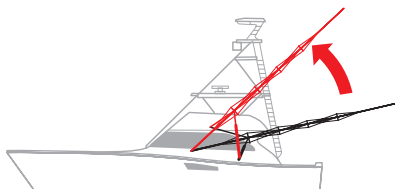
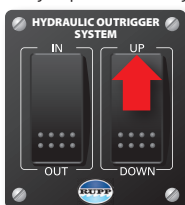
### (LOWERING FOR BRIDGE CLEARANCE/MAINTENANCE)

The Gen2 system prompts the operator into the correct movement sequence, reducing any chance of damage from improper movement sequence. The **DOWN** function will not work until the unit senses the **OUT** button has been pressed, this is the case even if the outriggers have already been moved out of the lock. Press **DOWN** to lower riggers. Caution - Riggers will move slightly inboard during the down movement due to system geometry.



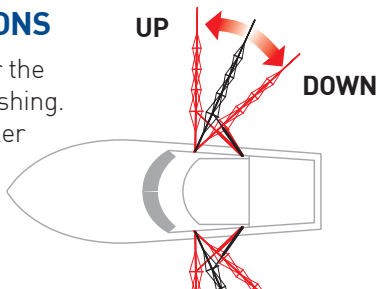
## STOW INSTRUCTIONS (FROM THE LAYDOWN POSITION)

It is imperative to follow the correct sequence when preparing to stow your outriggers from the laydown position. It is critical that the outriggers be moved in the **UP** direction prior to moving the riggers **IN** towards the boat. By moving the rigger all the way up it will ensure the hydraulic locking mechanism will be properly aligned when they move in to the stowed position. Failure to follow the sequence could result in serious damage to your boat, outriggers and/or hardtop. An optional locking rocker switch may be added to the up/down switch in order to help prevent the riggers from inadvertently being moved out of sequence. Use **UP** to move riggers all the way up until they stop. Then follow additional stowing instructions below.



## FORE / AFT POSITIONING INSTRUCTIONS

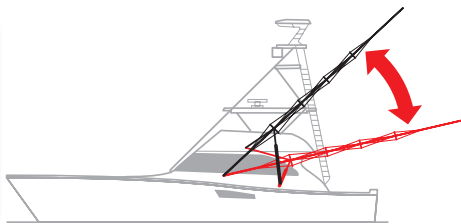
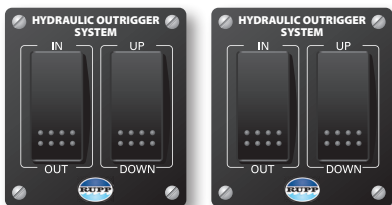
A benefit of the deluxe package is the ability for the captain to adjust the outrigger spread during fishing. This is achieved by utilizing the **UP/DOWN** rocker switch after the riggers are fully deployed. When using the DOWN feature for Fore/Aft positioning, the OUT button must be quickly depressed to allow the system to move DOWN.



**RUPT002231**

# DELUXE POWER RIGGER PLUMBING

## UP/DOWN DIAGRAM



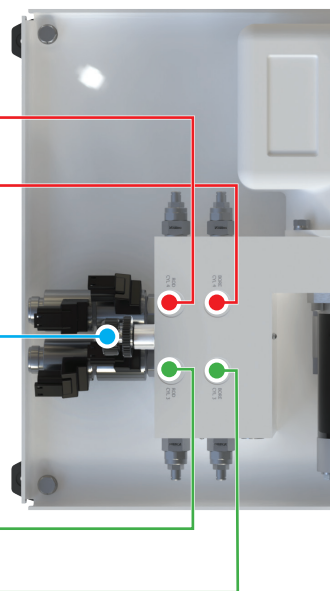
MANIFOLD LABEL	FUNCTION
Cyl 1 Rod	Stbd IN
Cyl 1 Bore	Stbd OUT
Cyl 1 Lock	Stbd LOCK
Cyl 2 Rod	Port IN
Cyl 2 Bore	Port OUT
Cyl 2 Lock	Port LOCK
Cyl 3 Rod	Stbd DOWN
Cyl 3 Bore	Stbd UP
Cyl 4 Rod	Port DOWN
Cyl 4 Bore	Port UP



DOWN

UP

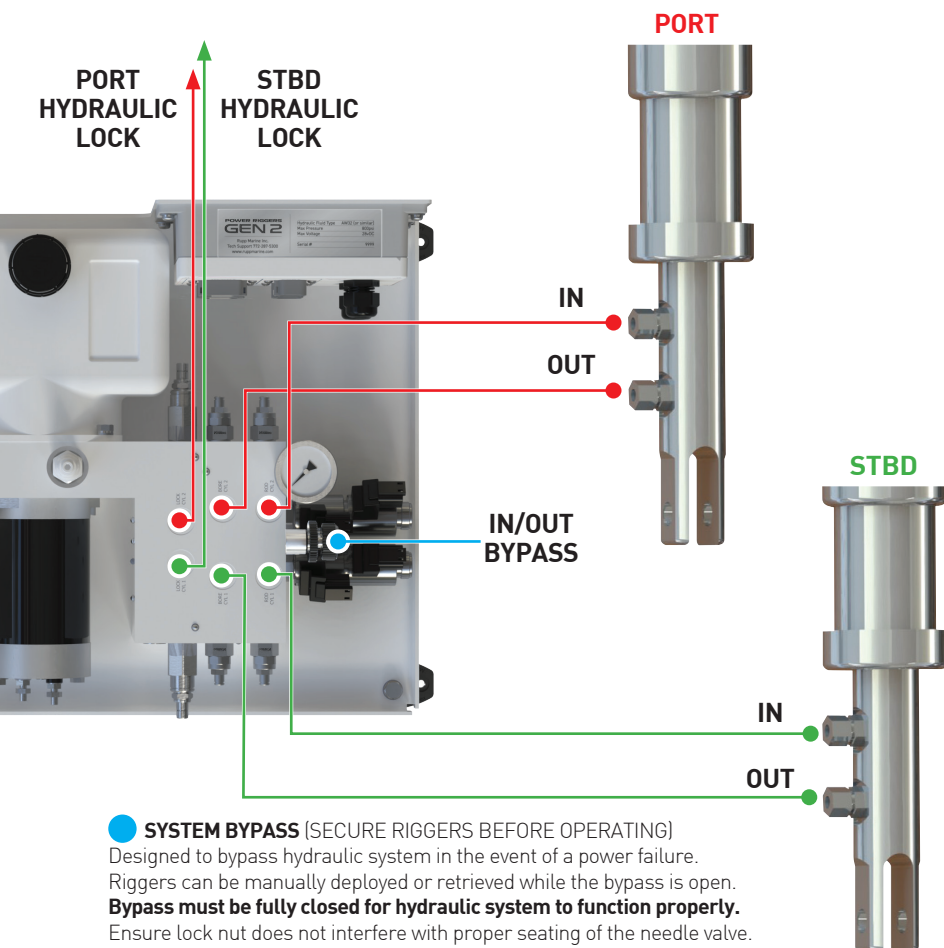
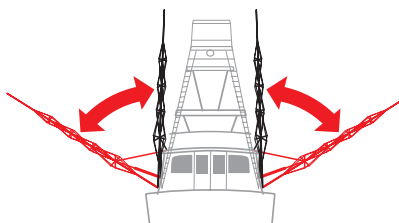
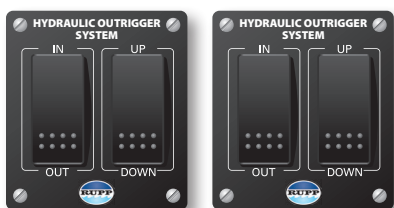
UP/DOWN  
BYPASS



**IMPORTANT:** Care should be taken during installation to ensure hydraulic hose chafing does not occur during vessel operation. Allow for pressure flex.

**RUPP002232**

## IN/OUT DIAGRAM



### ● SYSTEM BYPASS (SECURE RIGGERS BEFORE OPERATING)

Designed to bypass hydraulic system in the event of a power failure.

Riggers can be manually deployed or retrieved while the bypass is open.

**Bypass must be fully closed for hydraulic system to function properly.**

Ensure lock nut does not interfere with proper seating of the needle valve.

To OPEN valve turn counterclockwise. All cylinders will move freely.

Ensure riggers are properly secured prior to opening system bypass.

**ALL UNMARKED COMPONENTS ARE FACTORY SET (DO NOT TOUCH)**

Counterbalance Valves, Sequence Valves, and Solenoids

**RUPP002233**

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# BASIC SYSTEM MAINTENANCE

1. Routine outrigger maintenance should be done in line with manufacturers recommendations. Visit [ruppmarine.com](http://ruppmarine.com) for additional information
2. Inner sleeve of hydraulic rams require fresh water rinse after use, routinely lubricate inner sleeve with Rupp Alumaguard or similar marine aluminum lubricant. Excessive salt buildup in this location may cause cylinder to move slowly or bind. Cylinder must be extended to expose inner sleeve.
3. Inspect and top-up hydraulic fluid levels as needed.  
1/2 full is considered full.
4. Inspect rocker switch assemblies yearly for signs of corrosion by removing them from their mounting position. Inspect the blade connectors and connection; replace switch if there are any signs of moisture exposure or evidence of corrosion.
5. Mobile hydraulic applications are subject to shock and vibration. We highly recommend a thorough semi-annual inspection of all hydraulic connection points. This includes all power unit and all thru-hull (bulkhead) fittings. Check for leaks and loose fittings, replace or repair as needed.

## IDENTIFICATION RECORD

**POWER UNIT #**  
(ON ELECTRICAL ENCLOSURE)

**OUTRIGGER SET #**  
(ON BASE OF OUTRIGGER)

Use above serial numbers when contacting  
Rupp Marine for service parts or technical support:

[service@ruppmarine.com](mailto:service@ruppmarine.com)

866-477-2678

772-286-5300

# NOTES

Entered on FLSD Docket 10/06/2025 181

# ACCESSORIES & RIGGING

## OUTRIGGER DREDGE PULLEY

Harken Carbo Air blocks are lightweight, strong, reliable—and affordable. These single block pulleys have become the tournament standard for running a Teaser Line or Dredge Line from your outrigger. Available in four sizes, these pulleys can be used in multiple locations, see rigging instructions for clarification. Sold individually.



APPLICATION	SIZE	PART #
TOP GUN	29mm	MI-0054
TOP GUN	40mm	MI-0055
RUPPRIGGER	57mm	MI-0056
RUPPRIGGER	75mm	MI-0062

## PULLEYS & PULLEY CLUSTERS

Original pulleys are high strength, polished stainless steel with Delrin® rollers, available as single or double pulleys for single or double rigging options. Rupp pulley clusters, eliminate eye-bolt and halyard line chafing by adding a roller pulley in place of each outrigger eye-bolt.



TYPE	PART #
SINGLE PULLEY	CA-0027
DOUBLE PULLEY	CA-0028
SINGLE PULLEY CLUSTER	CA-0144
DOUBLE PULLEY CLUSTER	CA-0145
TRIPLE PULLEY CLUSTER	CA-0146

## DELUXE TAG-LINE RETURN

Chrome Plated brass with rubber "O" ring bumpers to help protect outrigger poles and boat hulls. Measures 1.625"L x 1.25"D, center hole diameter .625".

PART # CA-0182



## OUTRIGGER DREDGE PULLEY - FOLBE 3" PULLEY

Folbe 3" fiber reinforced nylon pulleys are reliable—and affordable. Perfect for pulling Dredge Lines from your outrigger. Integrated stainless steel swivel. 5/8" wide sheave, works with any line up to 3/8".

PART # MI-0063



## TEASER/DREDGE CLAMP

NEW stronger design! Anodized aluminum clamp-on collar with reinforced stainless steel eye-bolt. Ideal for locating your Dredge/Teaser almost anywhere on the outrigger. Available in different diameters.



DIA.	APPLICATION	PART #
2.375"	BR-BELOW SPREADER 1	03-1531-23T
2.175"	BR-ABOVE SPREADER 1	03-1528-23T
2.00"	TR-BELOW SPREADER 1	03-1154-23T
1.80"	22" CF POLE BASE	03-1154-23TS
1.75"	TR-ABOVE SPREADER 1	03-1856-23T
1.75"	BR-ABOVE SPREADER 2	03-1856-23T
1.625"	TR-ABOVE SPREADER 2	03-1856-TS
1.50"	22" CF POLE ABOVE BASE	03-1856-TSM

## DREDGE RETRIEVAL PULLEY SYSTEM

A novel approach to managing a dredge retrieval line. Setup is quickly and easily when used in conjunction with our stainless steel thru-gunwale fairlead tubes (sold separately).

PART # MI-0065-AS



## STAINLESS STEEL FAIRLEAD TUBES

Run your rigging through the gunwale or covering boards. Measures 2.875" or 3.875" in length, 5/8" OD, 3/8" ID. Includes tube, lock washer, fender washer, and stainless nut.

PART # MI-0012-STD (2.875")  
PART # MI-0012-LG (3.875")



## OUTRIGGER DREDGE PULLEY - 40MM FIDDLE BLOCK

Harken# 2656F 40mm Low-friction Carbo Air blocks are lightweight, strong, reliable—and affordable. Fiddle blocks are often used closest to the outrigger when running large Teaser or Dredge Lines from your outrigger.

PART # MI-0057



## OUTRIGGER TEASER RING

316ss welded outrigger ring. Allows the option for easily adding a teaser into the outrigger spread. Also commonly used for kite fishing. Measures 1.5" diameter [3/16" thick].

PART # MI-0064



## DREDGE RIGGING KIT

Everything you need to pull a Dredge from your outrigger setup. This kit includes (200ft) 400lb Blk Monofilament Outrigger Line. (10) nickel plated crimps, (1) 500# Dredge Dawg Swivel, (1) 316SS Heavy Duty Spring Clips, (1) 40mm Harken Swivel Block, (1) Harken 29mm Swivel Block.

PART # CA-0185



## CARBON FIBER FLAGPOLE

Fits perfectly in virtually any of your boats rod holders. Manufactured from lightweight and super strong carbon fiber tubes with 3K weave pattern. Fly one or two flags from a rocket launcher or deck mount rod holder, the "rod butt" design locks into the rod holder gimbal.

PART # A0-0FLG-48



# ACCESSORIES & RIGGING

## NOK-OUTS®

The ultimate high-performance outrigger clip. Tournament proven Nok-Outs with patented roller guides and twin adjustments easily pull large or small baits and artificial lures while protecting against line chafing. Easy-to-use, one hand operation makes Nok-Outs quick to load when the fishing action gets fast and furious. Sold in pairs.

PART # CA-0023

Patent # 4,611,423



## RIGGING KITS

Complete rigging package for both outriggers. Available in single, double and triple models. Kit includes Rupp pulley shock cords, mounting hardware, halyard lines and your choice of Rupp Release Clips.



PART # CA-0025-MO  
Shown



PART # CA-0108  
Shown



PART # CA-0158-MO  
Shown

RELEASE CLIPS	LINE TYPE	SINGLE PART #	DOUBLE PART #	TRIPLE PART #
KIT W/ZIP CLIPS	WHITE NYLON	CA-0109	CA-0107	CA-0158
KIT W/KLICKERS	WHITE NYLON	CA-0110	CA-0108	CA-0159
KIT W/NOK-OUTS	WHITE NYLON	CA-0025	CA-0026	CA-0160
KIT W/ZIP CLIPS	BLACK MONO	CA-0109-MO	CA-0107-MO	CA-0158-MO
KIT W/KLICKERS	BLACK MONO	CA-0110-MO	CA-0108-MO	CA-0159-MO
KIT W/NOK-OUTS	BLACK MONO	CA-0025-MO	CA-0026-MO	CA-0160-MO

## KLICKERS®

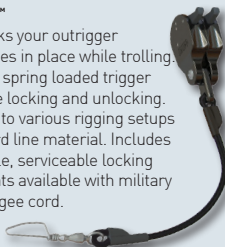
Our easy-to-use Klickers provide maximum trolling performance for sportfishermen who demand the best. Designed for dragging a wide range of baits and lures, this clip offers the smoothest operation under any conditions. Precision designed with a state-of-the-art release mechanism that allows passage of Bimini twist knots and double lines. Sold in pairs.

PART # CA-0105



## LOK-UPS™

Firmly locks your outrigger halyard lines in place while trolling. Includes a spring loaded trigger for positive locking and unlocking. Adaptable to various rigging setups and halyard line material. Includes replaceable, serviceable locking components available with military grade bungee cord.



## LINE-UPS™

### HALYARD LINE RETAINERS

Simply clamp a set of Line-Ups to any 1.5" diameter telescoping outrigger pole and the excess rigging line is easily wrapped around the pop-up cleats to keep lines neat and orderly.

PART # CA-0105  
PATENT # D814273



## ZIP CLIPS®

A precision instrument for today's fisherman, Rupp Zip Clips provide versatile performance for use with outriggers, downriggers, kites and even flat lines. Zip Clips special tension adjuster allows precise light tackle setting and proven, state-of-the-art design gives flawless, tangle-free performance. Sold in pairs.

PART # CA-0106



TYPE	PART #
SINGLE	CA-0157-1X
SINGLE W/BUNGEE	CA-0157-1
DOUBLE	CA-0157-2X
DOUBLE W/BUNGEE	CA-0157-2
TRIPLE	CA-0157-3X
TRIPLE W/BUNGEE	CA-0157-3
QUAD	CA-0157-4X
QUAD W/BUNGEE	CA-0157-4

Patent # 9,173,386

## SEASUCKER® HALYARD TENSIONER

Rupp Marine's custom rigging saddle attached to a 4.5" SeaSucker is the perfect way to manage your halyard lines. Position the SeaSucker mount on virtually any smooth surface (under the gunwale, under the hardtop, side of bridge etc). Use with 1/8"-3/8" diameter nylon rope.

PART # CA-0186



## SHOCK CORD ASSEMBLIES

The ultimate rigging component. Durable 1/4" shock cord secures a stainless steel snap swivel with or without pulleys.



TYPE	PART #
SINGLE PULLEY SHOCK CORD	CA-0118
DOUBLE PULLEY SHOCK CORD	CA-0119
MULTI-PURPOSE SHOCK CORD	CA-0120

## HALYARD LINE TENSIONER - THRU GUNWALE

Stainless steel fairlead tube, mounting bracket and cleat all incorporated into an assembly designed to allow for easy installation in the gunwale.



TUBE LENGTH	PART #
3.875"	MI-0011-LG
2.875"	MI-0011-ST

## ALUMA GUARD®

Forms a protective coating on surfaces, prevents penetration of harmful substances and restores a lasting shine. Guards against pitting and corrosion caused by the harsh effects of the marine environment. Sold in 16 oz. bottle.

PART # CA-0087



**RUPP002237**

Learn more at ruppmarine.com or call 866-477-2678 • 772-286-5300 • V090924



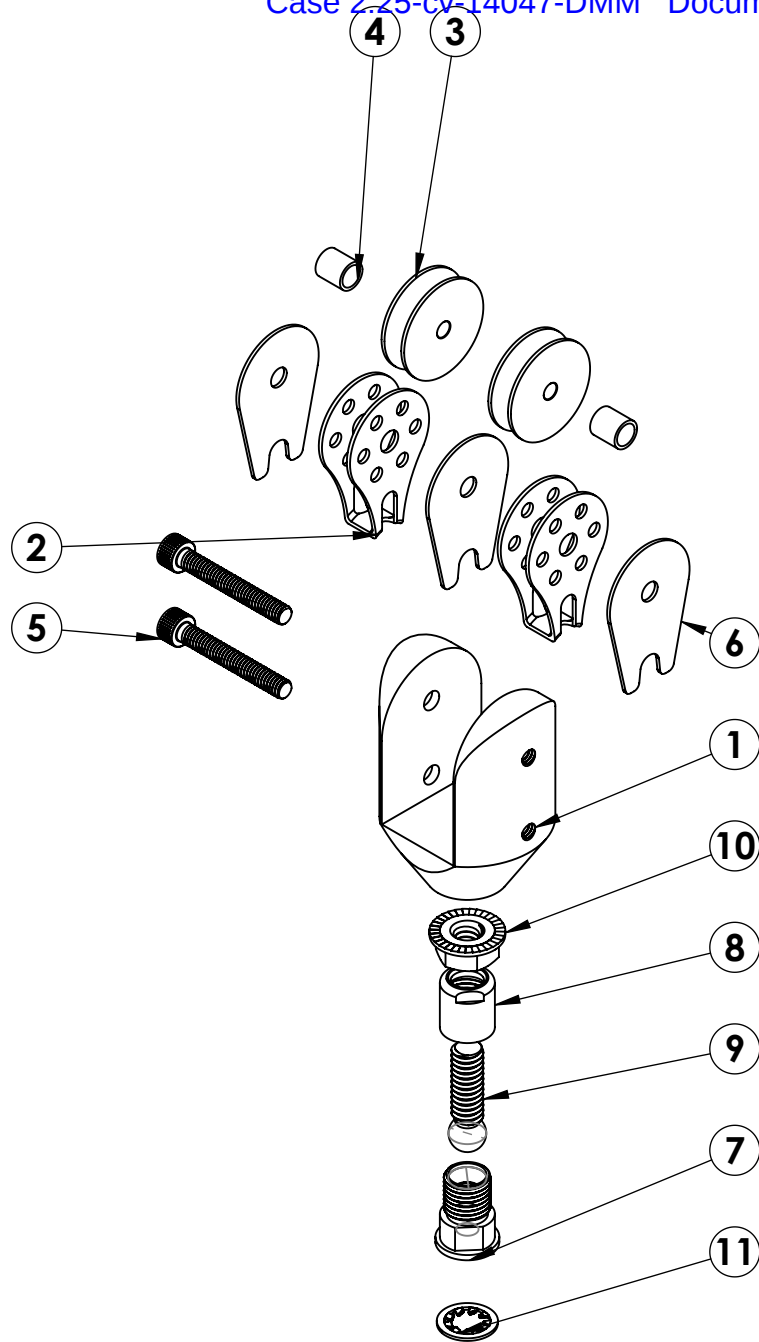
In 1979, inventor and avid sport fisherman, Mickey Rupp, set out to design and manufacture an outrigger system that was easy to use and easy to service. His mission was to produce "the finest outriggers in the world". Rupp Marine Inc. was founded a year later as demand quickly grew for his innovative, user friendly designs. The years immediately following incorporation saw a rapid expansion of the Rupp Marine patented product range, which included the invention of the T-top mounted outrigger.

Rupp quickly became known as one of the world's premier marine hardware manufacturers and one of the most recognizable and trusted brands in the sportfishing industry.

45 years later our mission statement remains unchanged...

**TO BUILD THE FINEST  
SPORTFISHING HARDWARE  
IN THE WORLD.**





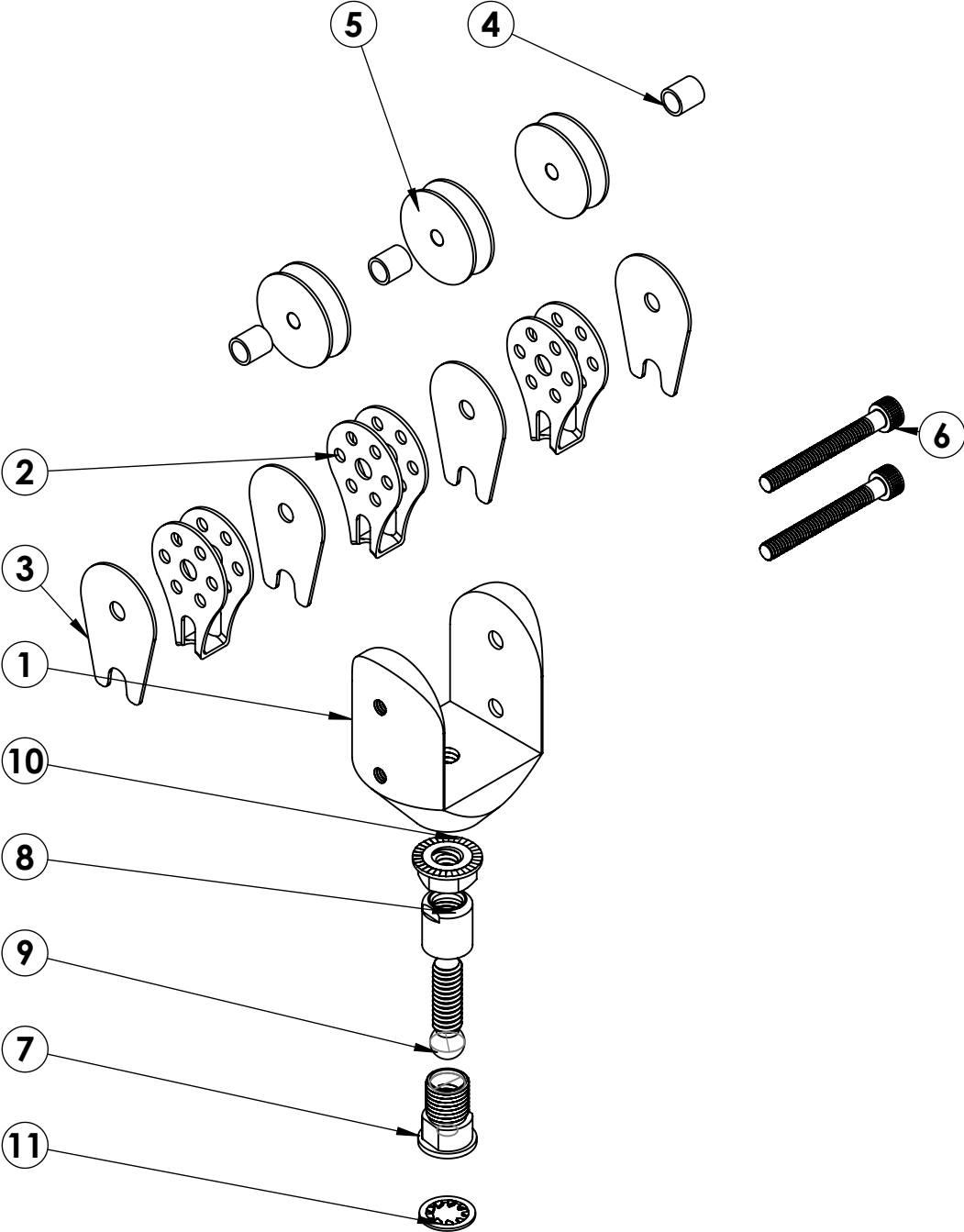
#	Qty	Part No	Description
1	1	01-1702-23	Roller Bracket, Double
2	2	04-1288-42	Halyard Pulley Frame
3	2	04-1289-40	PULLEY WHEEL
4	2	04-1290-23	Pulley Bushing
5	2	04-1711-23	8-32 x 1 1/8 Socket HD MS Alum.
6	3	04-1777-50	Washer, Roller Frame
7	1	04-1791-42	Swivel Base
8	1	04-1790-42	Capture Collar
9	1	04-1789-42	Swivel
10	1	420-000-01	1/4-20 Flange Nut
11	1	04-1709-40	1/4"Int.Tooth Lock Washer, S/S

RUPP002403



## CA-0145 Parts Breakdown

Last Updated 11/27/2023 Sheet 1 of 1



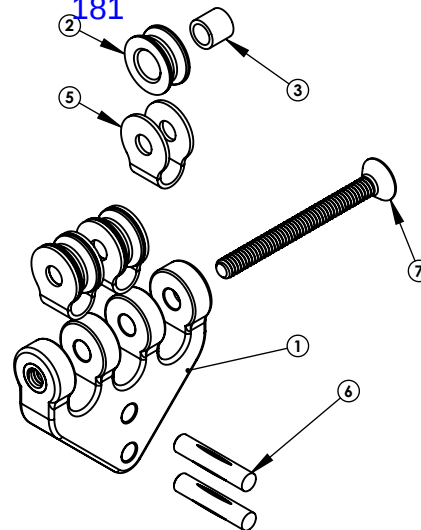
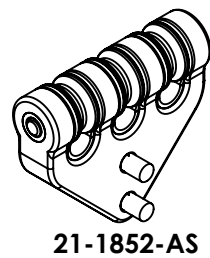
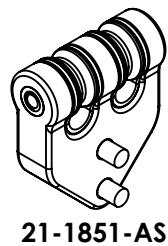
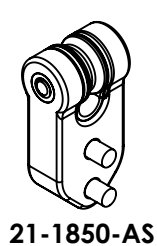
#	Qty	Part No	Description
1	1	04-1701-23	Roller Bracket, Triple
2	3	04-1288-42	Halyard Pulley Frame
3	4	04-1777-50	Washer, Roller Frame
4	3	04-1290-23	Pulley Bushing
5	3	04-1289-40	PULLEY WHEEL
6	2	04-1712-23	8-32 x 1 3/8 Socket HD MS Alum.
7	1	04-1791-42	Swivel Base
8	1	04-1790-42	Capture Collar
9	1	04-1789-42	Swivel
10	1	420-000-01	1/4-20 Flange Nut
11	1	04-1709-40	1/4"Int.Tooth Lock Washer, S/S

RUPP002404



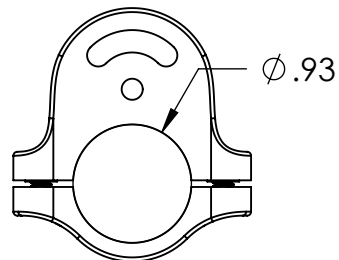
**Rupp Marine Inc**  
Serious Sportfishing Hardware  
(772)286-5300 (866)477-2678

**CA-0146**  
**Parts Breakdown**

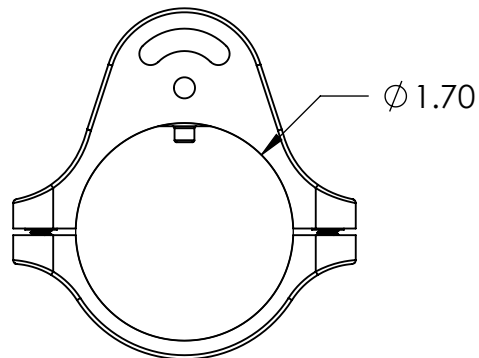


21-1850-AS Single Toggle			
Item #	Qty.	PartNo	Description
1	1	21-1850-50	Single Toggle
7	1	832-0750-131	#8-32x.75 Hex Drive Flat Head
21-1851-AS Double Toggle			
Item #	Qty.	PartNo	Description
1	1	21-1851-50	Double Toggle
7	1	832-1250-131	#8-32x1.25 Hex Drive Flat Head
21-1852-AS Triple Toggle			
Item #	Qty.	PartNo	Description
1	1	21-1852-50	Triple Toggle
2	3	21-1853-40	Pullley Wheel
3	3	21-1854-50	Bushing
4	1	21-1859-30	#8-32 Thread Insert
5	3	21-1860-40	Roller Sheild
6	2	21-1863-40	Type Pin
7	1	832-1750-131	SCHCSREW #8-32x1.75

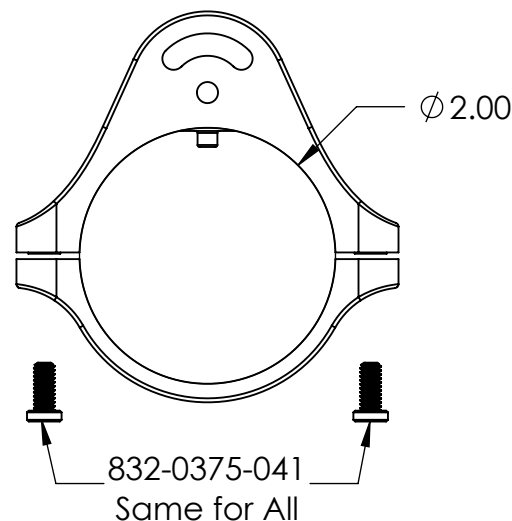
**21-1846-AS**  
22',18'',15' Carbon Fiber Pole  
Tip Section



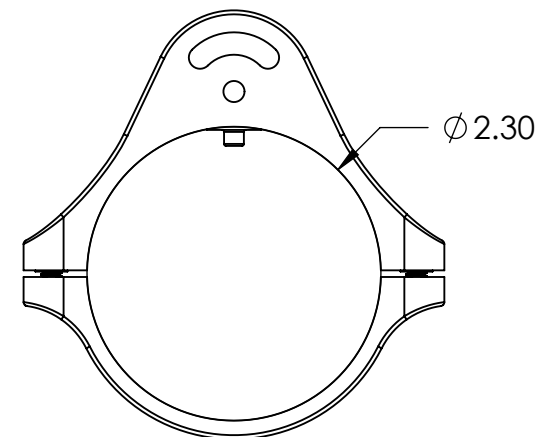
**21-1847-AS**  
22' Carbon Fiber Pole  
3rd Collar  
18',15' Carbon Fiber Pole  
2nd Collar



**21-1848-AS**  
22' Carbon Fiber Pole  
2nd Collar  
18',15' Carbon Fiber Pole  
1st Collar



**21-1849-AS**  
22' Carbon Fiber Pole  
1st Collar



Kit #	Description
CA-03PC-2X	Double Pulley Set CF (15'/18') PR
CA-03PC-2XA	Double Pulley Set AL (15'/18') PR
CA-03PC-3X	Triple Pulley Set CF (15/18) PR
CA-03PC-3XA	Triple Pulley Set AL (15'/18') PR
CA-04PC-2X	Double Pulley Set CF (22') PR
CA-04PC-3X	Triple Pulley Set CF (22') PR

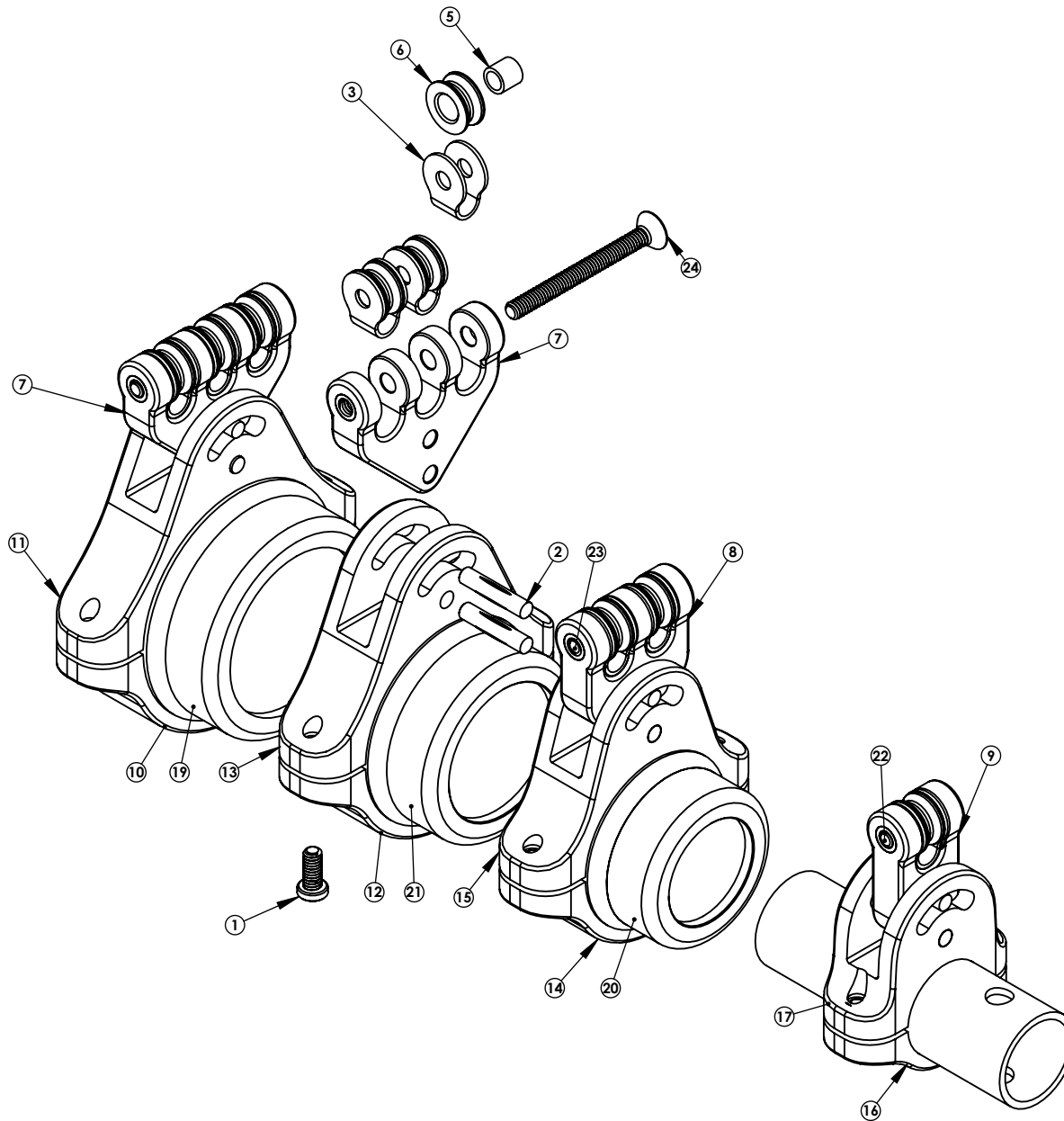
**RUPP002405**

**CONFIDENTIAL**



**Rupp Marine Inc**  
Serious Sportfishing Hardware  
(772)286-5300 (866)477-2678

**CFT Pulleys**  
**Parts Breakdown**



Item #	Qty	Part #	Description
1	8	832-0375-041	#93615A315 #8-32 X .375
2	8	21-1863-40	Type Pin
3	9	21-1860-40	Roller Shield
4	12	21-1859-30	#8-32 Thread Insert
5	9	21-1854-50	Bushing
6	9	21-1853-40	Pulley Wheel
7	2	21-1852-50	Triple Toggle
8	1	21-1851-50	Double Toggle
9	1	21-1850-50	Single Toggle
10	1	21-1849-50B	XL Tilt Clamp Bottom
11	1	21-1849-50A	XL Tilt Clamp Top
12	1	21-1848-50B	Lg Tilt Clamp Bottom
13	1	21-1848-50A	Lag Tilt Clamp Top
14	1	21-1847-50B	Med Tilt Clamp Bottom
15	1	21-1847-50A	Med Tilt Clamp Top
16	1	21-1846-50B	SM Tilt Clamp Bottom
17	1	21-1846-50A	SM Tilt Clamp Top
19	1	21-1829-21	Tele Collar XL CF
20	1	21-1796-21	Tele Collar MED CF
21	1	21-1797-21	Tele Collar LG CF
22	1	832-0750-131	#8-32x.75 Hex Drive Flat Head
23	1	832-1250-131	#8-32x1.25 Hex Drive Flat Head
24	2	832-1750-131	SCHCSCREW #8-32x1.75

RUPP002406

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 Serious Sportfishing Hardware  
 (772)286-5300 (866)477-2678

**CFT Pulleys W Collars**  
**Parts Breakdown**





RUPP003378





RUPP003379



RUPP003380

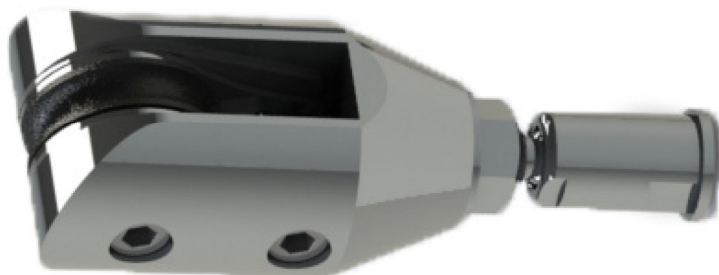




RUPP003381



RUPP003382



RUPP003383



# SERIOUS SPORTFISHING HARDWARE



## SPARE PARTS



Single Pulley



Aluminum Crimps



Release Clip Rebuild Kit



Double Pulley



Halyard Ball Stop

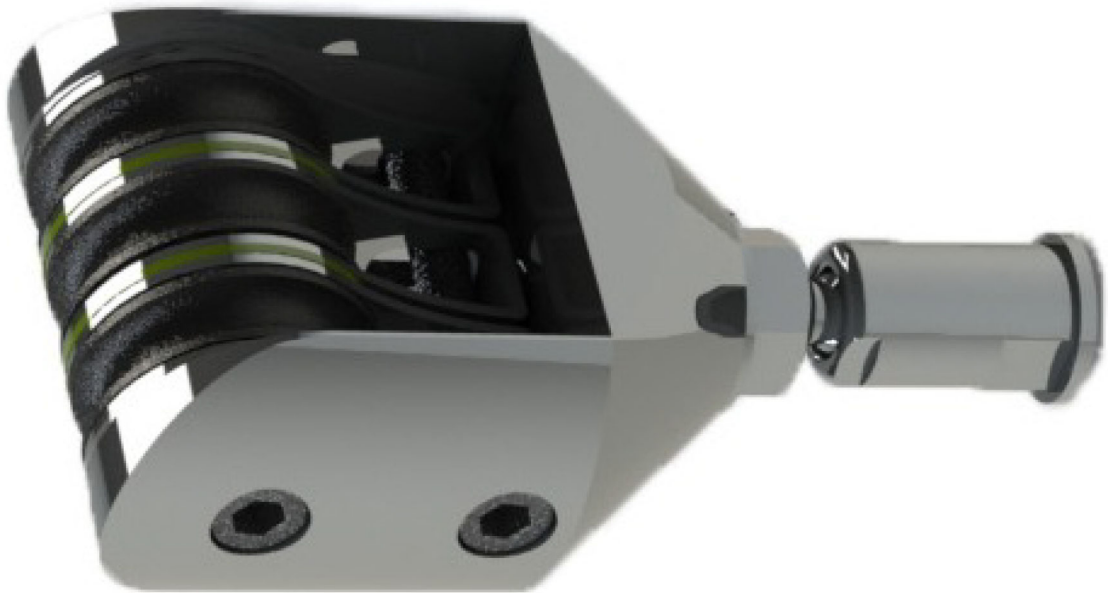


Miscellaneous

**MADE IN USA**



RUPP003384



RUPP003385